



Examiners' Report January 2013

GCE Geography 6GE01 01

#### **Edexcel and BTEC Qualifications**

Edexcel and BTEC qualifications come from Pearson, the world's leading learning company. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at <a href="https://www.edexcel.com">www.edexcel.com</a> or <a href="https://www.edexcel.com">www.btec.co.uk</a> for our BTEC qualifications.

Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

If you have any subject specific questions about this specification that require the help of a subject specialist, you can speak directly to the subject team at Pearson. Their contact details can be found on this link: www.edexcel.com/teachingservices.

You can also use our online Ask the Expert service at <a href="www.edexcel.com/ask">www.edexcel.com/ask</a>. You will need an Edexcel username and password to access this service. See the ResultsPlus section below on how to get these details if you don't have them already.



#### Giving you insight to inform next steps

ResultsPlus is Edexcel's free online service giving instant and detailed analysis of your students' exam results.

- See students' scores for every exam question.
- Understand how your students' performance compares with class and Edexcel national averages.
- Identify potential topics, skills and types of question where students may need to develop their learning further.

For more information on ResultsPlus, or to log in, visit <a href="www.edexcel.com/resultsplus">www.edexcel.com/resultsplus</a>. Your exams officer will be able to set up your ResultsPlus account in minutes via Edexcel Online.

#### Pearson: helping people progress, everywhere

Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for raising achievement through innovation in education. Find out more about how we can help you and your students at: <a href="https://www.pearson.com/uk">www.pearson.com/uk</a>.

January 2013

Publications Code US034520

All the material in this publication is copyright © Pearson Education Ltd 2013

### Introduction

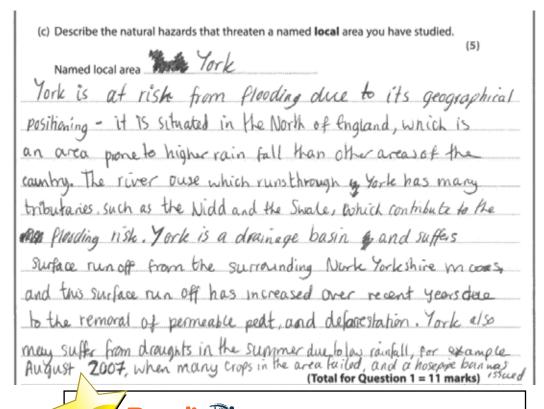
Each Unit 1 examination to date has contained a handful of questions that have uncovered knowledge gaps in large numbers of candidates' learning. On this occasion, areas of particular concern include the natural greenhouse effect, local population data sources and ENSO cycles (based on the very large numbers that steered clear of Question 7, which is usually the most popular of the option essays).

### Question 1 (a) (ii)

Relatively few candidates could offer three ideas, despite the prompting of Figure 1 and the fact that California is a compulsory case study. Better answers offered some details of the San Andreas Fault and could provide some useful information about the global distribution of hydro-meteorological hazards clearly pertaining to the USA. Credit was given for well-made points about the extent of financial risks in the USA. It was quite evident that many candidates still do not appreciate the 'currency' of the examination (1 point per mark); with many offering just two simple statements, despite the fact that 3 marks were available.

## Question 1 (c)

The best answers were interesting, informative and well-focused on the nature of the natural hazards present in the school's local area. Credit was also given for a well-located account of the two disaster hotspots referred to in the Specification. The best answers located a local area within a disaster hotspot, for example Luzon in the Philippines, and could give specific detail about the physical causes of a range of hazards such as earthquakes, volcanoes, tsunamis, landslides and typhoons, including their frequency and magnitude. Other popular and successful case studies included the California coast (earthquakes along the San Andreas Fault, droughts and wildfires in La Nina years, floods and mudslides in El Nino years), Boscastle (details of river confluence, high precipitation totals over a short period of time, location within valley and underlying geology) and Shropshire (flooding along River Severn with good detail of rainfall amounts and duration, earth tremors caused by Church Stretton Fault including magnitude, snow storms in winter). Some candidates ignored the wording of the question and devoted much of their answer to a description of the vulnerability of people and their property.



This example, which scored full marks, describes the natural hazards (and factors and processes which give rise to them) in an appropriate level of depth.

### Question 2 (a) (i)

The majority of responses provided competent descriptions of the trend shown It was pleasing to see good analytical techniques being used: many candidates made good use of the data; allied to a well-qualified description of the trend (many noted the steep acceleration after the 1980s).

# Question 2 (a) (ii)

The basic point that technology has improved was grasped by most candidates although many were unable to offer any concrete suggestions of what such technology might comprise. Some made effective use of their knowledge of climate change evidence and could contrast 'unreliable' proxy data from 200 years ago (such as paintings or diaries) with accurate and reliable temperature readings made during the twentieth century. A handful of candidates offered additional well-reasoned ideas such as increased sample sizes (reducing the statistical margin for error).

I	(ii) Suggest why data uncertainty decreases over time.	
I		(3)
	Data uncertainty has decreases over time to	RC-
	ause the world is becoming more technological	illy
	advanced by finding patterns from la corest pa	ller
	maysis meaning they are more detriled in their	produces
	today medra coverage admorased study ha	5
l	lead to more accurate results of data.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,



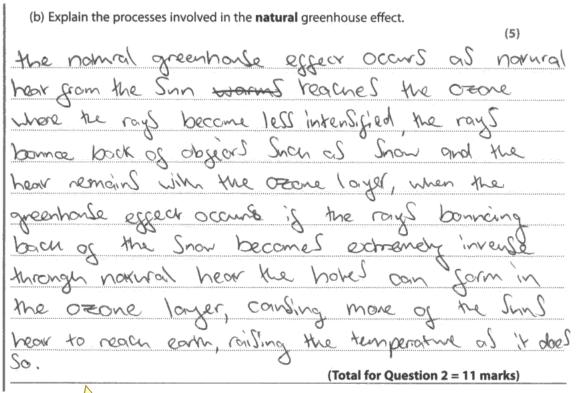
This is a good example with plenty of point-marked ideas (other than the starter point that 'technology has improved') which was awarded 3 marks.

### Question 2 (b)

Examiners were concerned by the level of inaccuracy on display in many responses to this question. In numerous cases, there was evidence of complete misunderstanding of the processes involved in the natural greenhouse effect. The operation of the greenhouse effect is core knowledge that underpins one quarter of the content for Unit 1, yet only a tiny minority of candidates could make five correct points and gain the full number of marks available. Frequently occurring misconceptions included:

- the claim that sunlight is reflected off the Earth's surface and then trapped by GHGs (very few candidates grasped the idea of radiation heat loss)
- the assertion that GHGs are trapped by the ozone layer (the sheer number of candidates who believe this to be the case continues to be a cause for concern).

In addition, significant numbers of candidates misunderstood the question in its entirety and wrote all they knew about the natural causes of climate change, such as sunspots.





This is an example of the sort of response which was, sadly, quite common. It scored no marks because it contains no factually correct information whatsoever.

### Question 3 (a) (ii)

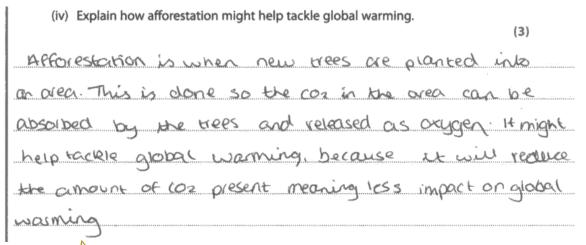
The overwhelming majority of candidates identified Kyoto by name, quite correctly.

## Question 3 (a) (iii)

Many candidates were confused by the terminology and wrongly identified a mitigation strategy, such as increased tax on fossil fuels. Candidates should make sure they know the difference between adaptation and mitigation.

## Question 3 (a) (iv)

Responses were generally very sound, with many scoring 2 or 3 marks and using appropriate terminology such as 'carbon sink'. However, as with Question 1(a)(ii), it was clear that many less able candidates adopt a 'that'll do' attitude to short-answer questions. With 3 marks available, three things need to be said to gain full credit, or else, a single point really does need to be well-developed. More able candidates were careful to 'tag on' an extra idea, such as flood risk adaptation, thereby gaining 3 marks.





This is an example of an answer that simply contains an insufficient number of ideas to ever be awarded three marks. This response was awarded 1 mark.



Look carefully at the mark allocation and tailor your answer accordingly.

In contrast to the previous response this example shows good examination technique.

1	(iv) Explain how afforestation might help tackle global warming.
	(3)
	Carbon Sinks help to absorb the
	amount of carbon dioxide realesed
	by burning fossil fuels. We can
	Carpon offsett the amount of
	Carbon we use in traveling by planting
	trees.



There are sufficient discrete points in this response to gain the full number of marks available.

## Question 3 (b)

With its emphasis on issues and governance (players), rather than physical processes, this question was generally answered better than either Question 1(c) or Question 2(b). Candidates used a range of scales (from local NIMBY attitudes to national / state responses to the need for 'carbon pledges') allied to an interesting range of strategies such as wind turbines, recycling and carbon capture and storage (CCS). One or two candidates had even heard of the unpopularity of the EU's planned carbon tariff (on manufactured imports) with China and other manufacturing nations.

### Question 4 (a) (i)

Many candidates answered this effectively, showing good located knowledge (by naming countries and regions where connectivity was shown to be high or low). Less able candidates' ability to describe geographical patterns was somewhat wanting, with references made to 'the left hand side of Africa' or 'up at the top' or 'along the edge' or 'on the outside of the region'. Candidates should be encouraged to use terminology such as 'interior' or 'coast' and to use compass points when locating areas. Some candidates wasted time in explaining the differences in connectivity.

The following example of a response to this question was awarded 3 marks.

4 Study Figure 4.
(a) (i) Compare Facebook connectivity in Africa with that in Europe.
(3)
Every contag in Europe has jacobook connectivity,
some have none, but at least a city with jacebook
connectivity Agrica on the other hand has it only
in the developing and developed cities such as cairo
and cape town the middle of Airia has a space
with no connectivity, so large the whole of Europe could git in it.



This is an effective answer using located detail.

### Question 4 (a) (ii)

An effective way to answer this question would have been to provide a numbered list of three physical factors - such as coastal / interior location, extreme climatic conditions and the availability of oil or other valuable resources - and then briefly outline how each can influence population numbers and / or wealth and thus demand. (Three short, succinct statements should do it!). Sadly, too many candidates filled the answer space with one or two rambling and poorly evidenced points about 'droughts in Africa' (the result being a score of just one or two marks).

(ii) Suggest how physical factors might contribute to the pattern of connectivity shown.

(3)

In Africa a lot of the land area is desert and uninhabble, therefore people don't live there and there are no developments.

Due to this there is very little facebook connechinty in Africa in Europe, they most countries have very developed infrastructure and therefore connechinty is higher as there is access to electricity and technology.

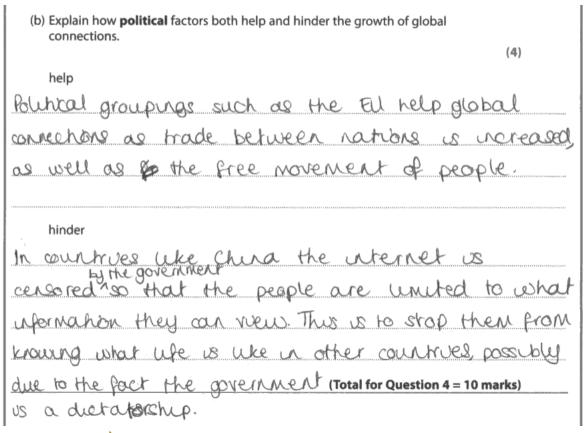


Sadly, this answer was fairly typical of the efforts of a large number of candidates. Very little specific information is offered, and the term 'physical' does not even seem to be wellunderstood. It scored 1 mark.

#### Question 4 (b)

There have been questions on this area of the specification before and there was evidence that candidates were well-prepared for a question asking them to consider how governance issues impact on network connectivity. Those that offered evidence - such as the EU ('help') and Chinese censorship ('hinder') - accessed full marks very easily. Sadly, the message that the use of evidence increases point marks has still not got through to some candidates.

The following response scored full marks.





This is a good example, showing how each idea has been carefully backed up with evidence thereby increasing the number of point marks that were awarded.

# Question 5 (c)

Three sensible suggestions that related clearly to the understanding that the Census is still conducted via the medium of a form that must, by law, be filled out and returned every ten years were required for full marks. Thus suggestions that 'people forget to post the form back' were deemed logical and creditable. It was, of course, pleasing to see more explicitly geographical answers being offered (such as the influx of A8 migrants in 2004 jeopardising the accuracy of the 2001 data!).

### Question 5 (d)

Performance here was markedly better than the last time that this topic was examined in Section A, suggesting improved delivery of this part of the course. Many good answers linked an interesting range of local data sources, including the qualitative recollections of older family members, to important population research themes such as origins, ethnicity and changing family sizes.

This is an example of a response which was awarded 5 marks.

(d) Explain how personal and local data sources can be used to study population changes and people's roots.

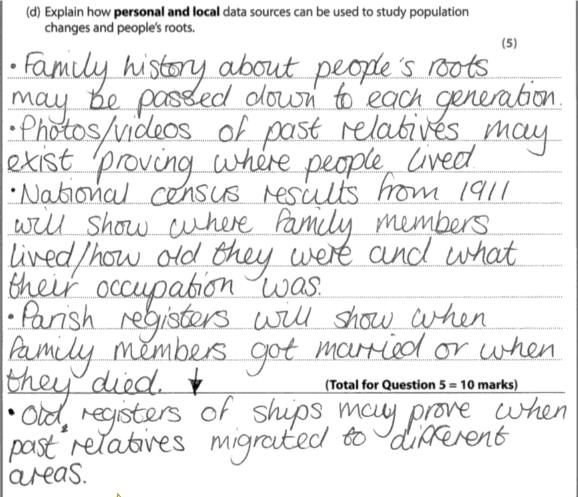
(5)

person all data sources such as family trees can be used to study population changes. For example by using a pamily tree you could compare the amount of children your mother had to your great great grandmother and therefore took at changes in local population smicture. You could also cook at records of towns or maps to shawderelepment of an area records can also be used from birth cirtipicates and personal records or marriage records to show the roots of people. The amount of migration occurring in your area can also be warranted using the consus data which may suggest population frows or the data in which the population started (Total for Question 5 = 10 marks) 1931/9.



This is a good answer that links a range of sources with some valid population research themes.

This is another good answer that was awarded all 5 marks.



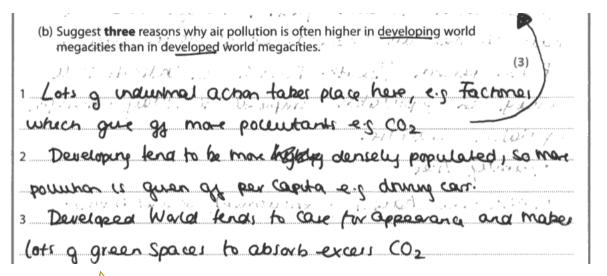


This answer also links a range of sources with some valid population research themes.

### Question 6 (b)

Some weaker answers were not credited here - notably assertions than developing cities 'suffer' from 'more people' or 'more cars'. The key issue for pollution is concentrations, or density, or people and cars. As Figure 6 shows, pollution is measured in terms of concentration (micrograms per cubic metre). It does not therefore follow that a 'big' city is highly polluted: some very large cities in the developed world have seen their pollution levels fall in recent decades, in part through urban sprawl and the growth of lower-density suburbs.

The following response was awarded 3 marks.





There are three well-made points here. Note that the challenge of population density, rather than just numbers, is made clear.

## Question 6 (d)

This question was generally well answered with many candidates scoring full marks. Popular case studies included Curitiba in Brazil, Dharavi in Mumbai (Vision Mumbai) and Dongtan in China. Stronger answers provided a good definition of sustainability. A few candidates demonstrated that they recognised urban sustainability has an economic/social dimension, not just an environmental one.

#### Question 7

- 7(a) Answers to this question were generally competent, suggesting that candidates who were unfamiliar with ENSO cycles avoided the question! The majority of candidates had a sound understanding of how El Nino cycles cause floods and droughts and could begin to explain reasons for this, with good use of geographical terminology. However, only a minority were able to explain fully how the frequency of these events was affected. The best answers were also precise in their account of air pressure differences and provided accurate, located examples of increasing hazard frequencies during recent ENSO cycles.
- 7(b) Most answers focused either on the physical causes of cyclone and storm risk or the human dimension of the risk equation. Few candidates could offer both and hence reach Level 4. Again, there was some excellent use of geographical terminology and sound scientific explanations were provided by many candidates for the occurrence of storms (including details of ocean temperatures and depth, specifics of latitude, coriolis force etc.). The majority of candidates focused purely on the distribution of hurricanes and tropical cyclones in and around tropical regions, which was perfectly acceptable and sufficient to gain a Level 4 mark if done well.

This response to part (a) scored Level 3 marks.

begin lost around 7 years. During the oscillation, varies and sea temperatures change causes a change in the amount of there is low pressure minfall - this can cause flosh levels to rise totally in that region, so South coastal flooding. Meanwhile Indonesia and it, which means rainfell is decreased. more frequently due to less rainfall. mildfires in the region. In La lon pressure over Ashalia and Indonesia, causing Flooding In those years South America meaning they are more homes and crops, meaning Livestock many also die meuning decreasing gields and insects eating crops or diseases affecting nater supplies for personal use, increasing the risk of



This example gives an accurate explanation of the meteorological changes occurring in the Pacific region during an El Nino cycle. The answer to part (a) was awarded 8 marks.

#### **Question 8**

8(a) This question was competently handled by many candidates, suggesting that it was largely selected by those who were at least fairly familiar with Unit 1's Arctic 'tipping point' topic!

8(b) Responses as a whole showed significant improvement compared with the last time this topic was examined in Section B. Most candidates showed the African continent to be a varied region comprising a range of countries at different stages of economic development, resulting in an uneven distribution of economic risk and an uneven ability to cope with the economic costs of adaptation or post-event reconstruction. Few candidates asserted that Africa was a 'country' populated by farmers (suggesting, again, that those who attempted Question 8 generally knew their stuff!).

This is an answer to part (b) that scored high Level 4 marks.

	b) Social is henry on Ghana is Tropical region is  Walaria is  werkin 17CZ
	Clinate change in frica has many impacts on fricas
	ourall economy to effect can both boost and damage
	different courties l'identires e conomies.
	In the Saher, 70% of the population rely on the
	agriculture industry. Deserblyication is meaning that
ß.	gillan boo lare as the drip excuse of seal and making
	once fertile lands and unsable. This means
	cero de gos red sapo de enal vin como pratis
	that can gow in and conditions, more elecuhere or find
	onalle zoura d'icane
	Kenya han alog reserved some regative effects of global
	gridsoed loss romes enter expert repid re grimaci
	graf are est grifice doubt not mean history
	pelies on the tourit industry and so this drop could
	mear a narries blow to be economy. How in Kenya y
	non, plineresbook to no man interegued gignath
	of house attraction could be lost of animal such as
	lions become to rare, len people will pay for sejon
	holidays meaning losing ant an even none tourists.
	A rise in temperature and increase in religible would

an an increase in maquito breeding grounds. The anopholies genale maquito can carry malara Malara tremmence so there inverse that blood bases exertless in because and at been burne sirbusque The Mile delse could also suffer from ofobal as in blus sin level as descent of any on an announce the delta become ratinised and therefore this firelle land would become very uproductive at growne crops. This would damage the Egyption economy to be uperature increase there could also be more carfeit for water as drought may become water common etter grady no sage i' com now new dispros marcos all grid good rout eiling and the authorizers all a Otto effect of global warning on typica, economy Ghasa regarde to earn much of its money from cocons been a carl crop) of this confirmen were sudsuborg from enough burn need of cont resources and war was a description of the second will and higher temperature. This aream Glane will have more export and this will boost Ghanas e carreny Finally tropical regions could get a larger growing according to the ITCZ Un round This means there areas will lim bus reall regical sof wilso ulcoutlings arow symmes riet of took a event To conclude different parts of Africa can face mony toppe live last griman ladde to dagni transfit draging with conservation of the common wall

there cannoto be a red loss in econor of economy of Agrico as a whole condient.



This answer paid good attention to the diversity of potential economic impacts of climate change in Africa, referring both to different sectors of industry and to a varied selection of countries. This answer to part (b) was awarded 15 marks.

#### **Question 9**

- 9(a) Answers were sometimes a little weak, consisting of little more than a re-writing of the resource, although this was often done quite elegantly. Few candidates used the opportunity to include their own information about EU membership, which was a missed opportunity (and perhaps showed some unfamiliarity with the term 'trade bloc').
- 9(b) There were good answers to this question that used geographical scale very well, pointing to the 'winners and losers' than emerge within countries, in addition to those identified in an analysis of national economic performance. Some of the evidence appearing in essays did appear to be a little out-dated, although candidates were not penalised for this (for instance, although manufacturing employment in China is less well-paid than in the EU, it is rather inaccurate to characterise it all as still being 'dollar-a day' work; the lowest-pay supply chain operations are increasingly likely to be found in Bangladesh or Pakistan, rather than China).

This extract is from a response to part (b) which scored Level 4 marks.

alabalisation has resulted in economic winners have shead naisha but branches all over the world laptop can have pares made in the land south Aprica, china and south Aprica but be Containerisation allowed places like Chira and other Asian liger TNCs to have branches allower the world by hold needings By Using Chean blown poor countries then seeing to rich countries TNCs to Easy be deciden to fly those it become tourist attraction for Chean hen The increase in burish was as more Source Colored and 2005 toll effect as the government had more money to

Spend on busing and imparature All browse

Flights become easier and cheaper, the world

become smaller

Shaller companies has also become wines

The interver means people can by products



This is an extract from a well-informed and up-to-date account of global inequalities. It does not re-state bland clichés (as weaker answers can do) nor does it give inaccurate portraits of middle-income countries. The mark awarded for the complete answer to part (b) was 15.

#### Question 10

10(a) This was an extremely popular question, almost certainly on account of candidates' lack of knowledge of ENSO (Question 7), feedback (Question 8) and trade blocs (Question 9). As a result, many less able candidates tackled Question 10(a), which meant there were a large number of very descriptive answers seen by examiners. Typically, these identified the 'highs and lows' of Figure 10 and suggested some generic reasons why some places attract more migrants than others. More able candidates put their compulsory case studies to good use and contextualised the data shown for the Mediterranean, eastern Europe and the EU economic core (including the UK).

10(b) Few candidates were able to give specifics about the benefits of migration to the UK and Spain despite both locations being compulsory AS case studies. This meant that many responses could not be awarded much higher than a Level 2 mark. In contrast, top-scoring candidates could elaborate by identifying specific areas within the UK and Spain where the young Polish and British retirees have settled. They also provided details of the types of jobs that Polish migrants took and could identify areas within the UK where these migrant concentrations were located. They could illustrate the impacts on the demography of the UK of Polish migrants by quoting fertility rates and / or dependency ratios. Furthermore they could locate and name specific shops established to serve the Polish migrants in UK cities and the British retirees in their Spanish enclaves, and some even had figures to demonstrate the impact their spending had on the host economies.

# **Paper Summary**

The following comments are based on the performance of the candidates on this paper.

There was evidence of continuing under-performance in the shorter Section A responses (typically those with 3 marks available), strongly suggestive of a persisting lack of understanding amongst candidates as to what the requirements of a point mark scheme are likely to be.

In contrast, there was strong evidence for *improved* candidate performance in answers to the shorter, resource-based questions in Section B. The assessment criteria seemed to be better understood than in some previous examination series, with fewer candidates either failing to make any use of the resource whatsoever, or failing to add any of their own ideas into the mix.

# **Grade Boundaries**

Grade boundaries for this, and all other papers, can be found on the website on this link:

http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx

Further copies of this publication are available from Edexcel Publications, Adamsway, Mansfield, Notts, NG18 4FN

Telephone 01623 467467 Fax 01623 450481

Email <u>publication.orders@edexcel.com</u> Order Code US034520 January 2013

For more information on Edexcel qualifications, please visit <a href="https://www.edexcel.com/quals">www.edexcel.com/quals</a>

Pearson Education Limited. Registered company number 872828 with its registered office at Edinburgh Gate, Harlow, Essex CM20 2JE





