

ResultsPlus

Examiners' Report January 2011

GCE Geography 6GE01 01

ResultsPlus
look forward to better exam results

Edexcel is one of the leading examining and awarding bodies in the UK and throughout the world. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers.

Through a network of UK and overseas offices, Edexcel's centres receive the support they need to help them deliver their education and training programmes to learners.

For further information, please call our GCE line on 0844 576 0025, our GCSE team on 0844 576 0027, or visit our website at www.edexcel.com.

If you have any subject specific questions about the content of this Examiners' Report that require the help of a subject specialist, you may find our **Ask The Expert** email service helpful.

Ask The Expert can be accessed online at the following link:

<http://www.edexcel.com/Aboutus/contact-us/>

Alternatively, you can contact our Geography Subject Advisor directly by sending an email to Jon Wolton on GeographySubjectAdvisor@EdexcelExperts.co.uk.

You can also telephone 0844 372 2185 to speak to a member of our subject advisor team.

ResultsPlus

ResultsPlus is Edexcel's free online tool that offers teachers unrivalled insight into exam performance.

You can use this valuable service to see how your students performed according to a range of criteria - at cohort, class or individual student level.

- Question-by-question exam analysis
- Skills maps linking exam performance back to areas of the specification
- Downloadable exam papers, mark schemes and examiner reports
- Comparisons to national performance

For more information on ResultsPlus, or to log in, visit www.edexcel.com/resultsplus.

To set up your ResultsPlus account, call 0844 576 0024

January 2011

Publications Code US026343

All the material in this publication is copyright
© Edexcel Ltd 2011

Introduction

6GE01 Global Challenges January 2011

This was the fifth time that this paper has been sat by candidates and an excellent understanding of contemporary geographical issues was displayed in many of their papers. Teachers seem to have got to grips with the content of Unit 1 and there is evidence that contemporary and global geographical issues are being taught effectively. Many students demonstrated good examination skills and issues to do with timing are relatively rare. It is, as always, important to prepare students fully in terms of examination skills especially in terms of the different demands of Section A (breadth, shorter questions, data stimulus skills) and Section B (depth, extended writing and factual detail). Some candidates may benefit from considering their choice of Section B question as it may be the case that many candidates choose Q7 almost by default without considering the merits of the alternatives. Question 7 was the most popular essay question by a considerable margin.

Question 1(c)

There were many good answers that conveyed detailed knowledge and understanding of the conditions needed for hurricane formation - and possible link with global warming in relation to changing magnitude, frequency or areas affected. Weaker answers made a simplistic “warmer water = more hurricanes” connection route but failed to state that a critical sea temperature of 26-27C is needed (nor did they distinguish between higher frequency and magnitude of storms) In contrast, the very best answers made specific references to key areas or track location changes.

(c) How might global warming increase hurricane disaster risk?

(3)
As the sea temperatures rise hurricane magnitude and frequency's are set to rise with sea temperatures exceeding 27°C more often, it will affect people further away from the equator. ~~and~~ ~~more~~ evaporation ~~and~~ will happen faster meaning the magnitude of hurricanes will increase and wind speeds increase.



ResultsPlus

Examiner Comments

An excellent response that makes all the right points.

(c) How might global warming increase hurricane disaster risk?

(3)
Global warming will increase the area of heat around the in the oceans this will change air pressures so more hurricanes will occur and they will be stronger.



ResultsPlus

Examiner Comments

The first idea is not clear enough but a mark was awarded for the idea of increased frequency as well as magnitude.

Question 1(d)

Some very good answers were seen that effortlessly attained the maximum mark with clear development of points and appropriate specific references made to a range of equipment and technology that is available both to record earthquakes and to disseminate media information. Weaker answers tended to focus solely on increasing disasters due to human factors such as population growth, thereby omitting the “reporting” keyword. Better answers often made use of an applied example such as Japan / Philippines. An extremely common misconception is that technology now allows rich countries to predict earthquakes. This is simply untrue.

(d) Explain how human factors have contributed to the increased reporting of earthquake disasters.

(5)

- x Technology has improved which has lead to scientists being able to measure when and where earthquakes have happened.
- x Population increase in areas vulnerable to earthquakes has lead to more being reported eg: Japan, population growing when it is very near to the Ring of Fire in the Pacific.
- x Television and communications has lead to places ^{which} otherwise would not have been contacted as a result of a disaster ~~then~~ getting a lot of media coverage; for example Haiti's earthquake in January 2010.



ResultsPlus

Examiner Comments

This response scored full marks.



ResultsPlus

Examiner Tip

Structuring an answer like this is perfectly acceptable. Here there are three ideas, two of which are extended / exemplified - so the response gains full marks overall.

Question 2(b)

High-scoring answers clearly demonstrated knowledge and understanding of adaptation - as opposed to mitigation - to manage climate change. One reason for relatively few attaining full marks was confusion over the relative costs of adaptation and mitigation. Assertions that adaptation is 'cheaper' could not be credited - as no time scale is considered nor are the costs of successive replacements (e.g. of Thames Flood Barrier) acknowledged (which might reasonably be expected of AS-level candidates). Only a few of the better candidates commented on relative cost when looked at over short/long term. There were also many sweeping statements about "people not having to change their lifestyles". Candidate response for "weaknesses" were generally stronger. A few made some credit-worthy references to biodiversity losses and offered examples. Quite a few candidates gained 3 marks here - which often meant full marks overall despite only scoring 1 mark for "strengths".

(b) Describe the strengths and weaknesses of adaptation as a way of managing climate change.

(4)

Strengths

using wind turbines does reduce the amount of greenhouse gas emissions
 recycling schemes are a sustainable way of reducing the amount of greenhouse gases are emitted

Weaknesses

wind turbines are ~~not~~ ^{visually} ~~attractive~~ polluting and you need alot to create the same energy as a coal power station.



ResultsPlus

Examiner Comments

This shows a failure to understand the meaning of "adaptation". Unfortunately, there were many more answers like this.

(b) Describe the strengths and weaknesses of adaptation as a way of managing climate change.

(4)

Strengths

They address the present situation of climate change which ~~is~~ already occurring and affecting parts of the Earth. Even if we stabilised emissions of greenhouse gases, climate change would still occur so it is vital to adapt to new environments. It will also allow development of countries with fossil fuel usage

Weaknesses

It will allow global warming to still happen and ~~the~~ regions of the world will still face decline in biodiversity, higher pollution, and more hydrometeorological disasters. To add to this, it



ResultsPlus

Examiner Comments

In contrast, here is an excellent answer that understands the topic and shows first-class exam technique (the points are precisely stated and show some variety of ideas).

Question 2(c)

There were varied responses here according to how well candidates had revised their compulsory case study of the continent of Africa. The two examples shown typify the polarity of responses. Good responses recognise a diverse continent with a mixed economy (including some emerging economies almost on a par with Bric nations). Weaker answers describe Africa as “an LEDC” that lacks any resources or money to cope with climate change. Perhaps recent highly publicised events in Egypt and North Africa will help provide future candidates with some sort of reminder of the diverse nature of the continent they are meant to have analysed. Many focused entirely on the negative impacts of agriculture but marks were lifted for those that at least referred to farming in specific areas e.g. Kenya cash crops (e.g. roses) There were some good references to wider issues including tourism, coral bleaching, migration and loss of wildlife eco-tourism. Some references to the economic costs of the spread of malaria (and reduction of capacity to work / lost productivity) were also seen.

Only a minority referred to specific differences in different areas there was more reference to rich/poorer countries.

(c) Suggest reasons why the economic impacts of climate change in the continent of Africa are complex.

- (5)
- In some parts of ~~Africa~~ Central Africa, eg Sudan and Niger, could lose up to 80% of the arid farm-land to desertification if climate change is to continue. This will mean that the main drivers of each of these countries economies will be lost. There will likely be famine, and increased poverty.
 - However, some parts of Africa will expect previously ~~barren~~ barren land to become fertile due to climate change. For instance Kenya expects ~~a~~ a 40% increase in workable farmland by 2080, which will mean that their economy can grow, and people can become richer. Even escaping poverty.
- (Total for Question 2 = 12 marks)



ResultsPlus

Examiner Comments

This is the kind of answer that we would hope to see given that a compulsory case study is being examined. A range of African environments are mentioned and supporting data provided.

(c) Suggest reasons why the economic impacts of climate change in the continent of Africa are complex.

(5)

Because the African climate is already so extreme, all impacts from climate change in the continent of Africa are complex; especially the economic impacts. Africa is a very poor country and many people struggle to earn enough money for their families as it is. If it gets any hotter in Africa people will not be able to grow crops and will become poorer still.

(Total for Question 2 = 12 marks)

As a continent, Africa cannot afford this.



ResultsPlus

Examiner Comments

This is very poor geography for an AS-level candidate to be producing. Africa is presented as a homogeneous entity. Simple words like 'hotter' and 'poorer' gain little credit.

Question 3(b)

This straightforward geography question caused difficulty for many candidates who wrote about the causes of global sea-level rise even though a different task had been set for them (and a resource provided). The discharge, deforestation, surface runoff, etc. Clear understanding was shown in such cases of the potential impact of climate change on the hydrological cycle and rivers basins / the distribution of river flooding. Unfortunately, far too many tried to argue (unsuccessfully) that the thermal expansion of rivers would lead to drastic flood plain inundation. A few managed to make a correct link between eustatic sea-level rise and permanent flooding of river flood plains due to incursions of sea-water (the ria idea). A few very good answers used specific example - perhaps suggesting that the Boscastle flash flood was an early example; others mentioned storm surges and understood the rising risks faced by the London Thames estuary.

(b) Explain **two** ways in which climate change may lead to an increase in river flooding.

(4)

1. An increase in storms and unpredictable rainfall patterns mean there is a greater risk of flash flooding which put pressure on swollen rivers causing them to burst their banks
2. Rising average global temperature cause increasing snow melt in mountainous regions and therefore rivers have more water to cope with - increased flooding risk



ResultsPlus

Examiner Comments

This response was properly focused on the question and explains how river flooding could increase. The hydrological knowledge is not especially complex (it does not need to be for this Unit) but the focus is spot-on.

Question 3(c)

Less able candidates gave generalised reasons why climate change severity cannot be predicted - with no specific reference made to the mechanisms of sea level change itself (although a lot of candidates lifted their overall mark by making good use of the idea of progress made by NICs/Brics and / or the refusal of some major players to sign up to International treaties). Wherever the processes of thermal expansion and ice-melt actually were actually acknowledged, it was often with authority and to good effect. Feedback / tipping points and role of carbon sinks and natural causes featured only in the better answers. On a separate note, too many wrote beyond the allotted lines here and often became a little repetitive (in relation to the theme of uncertainty).

(c) Explain why future changes in global sea level are hard to predict.

(5)

Future changes in global sea level are hard to predict as it is difficult to determine the rate at which climate change may occur - this may be dependent on which future scenario occurs, e.g. 'business as usual'. It is also difficult to predict the impacts of positive and negative feedback mechanisms which may have an impact on the rate of future sea levels, for example, increased ~~expansion~~ ice melt caused by increasing temperatures may lower the albedo effect (less sunlight reflected) meaning sea level may rise through thermal expansion.

(Total for Question 3 = 10 marks)



ResultsPlus

Examiner Comments

The uncertainty over rates of ice melt and thermal expansion are both clearly identified (2 marks). There is understanding of feedback mechanisms plus the role of changing albedo (2). Good comments about the rate of change expected for different scenarios takes this to full marks: a well-focused answer.

(c) Explain why future changes in global sea level are hard to predict.

(5)

We don't know how schemes may reduce global warming in the future, for example, reducing negative externalities by using carbon offsetting may be more influential in the future. We can't measure exactly how quickly global warming will affect sea levels although some places have already recorded increased sea levels. Government policies may change and increase environmental targets. New organisations may be formed purposely tackling sea levels. Every factor affecting sea levels are constantly changing unpredictably.



ResultsPlus

Examiner Comments

Although some good general ideas about climate change uncertainty feature here, it is a pity the candidate does not answer the question directly by addressing the specific processes that may lead to sea-level rise.

Question 4(a)

This question was correctly answered by the majority of candidates.

Question 4(c)

This was a successfully-answered question for many candidates. A secure focus on poverty / lack of customer base / lower profits in Africa and South America provided the basis for many satisfactory answers. The advanced idea of trade blocs / trading laws and political instability were found in some really good answers - as well as the idea that subsistence cultures had little use for major supermarkets, or a possible cultural "lack of fit".

Question 4(d)

Some excellent answers were seen here. Candidates generally had a clear understanding of the range of strategies used by TNCs and there was good use of terminology such as spatial division of labour, vertical and horizontal integration, mergers/acquisitions, economies of scale etc. These showed a sound underlying understanding of economically-orientated geographical theory. The most commonly quoted examples were Nike, McDonalds, Tesco and Coca-Cola.

Few grasped the geopolitical aspects of TNC growth (such as IMF support and patterns of aid and lending by many global players) - although this falls more within the scope of the A2 superpowers component.

(d) Using examples, describe the strategies that TNCs use to expand their global businesses.

(5)

TNCs expand by out-sourcing and through the spatial division of labour setting up production factories in NICs and LEDCs such as Burger King opening its first store in China in 2005 that attract an Asian market. TNCs ^{can} also slightly alter their products to appeal to a foreign market, as Cadbury makes its chocolate slightly sweeter in China, which would increase its multiplier effect and profits, allowing further expansion. TNCs also expand through foreign direct investment (FDI) in ^{NIC} ~~LEDCs~~ such as Taiwan in infrastructure and services that allows the TNC significant prominence in the country and the ability to dominate the market and use profits to further expand.

(Total for Question 4 = 10 marks)



ResultsPlus

Examiner Comments

This is a first-rate response that writes far more than is needed to reach full marks.

Question 5(b)

Most candidates correctly identified the importance of 2004; a minority thought it was the year of the UK's entry into the EU.

Question 5(c)

This was generally well done with some good efforts made by candidates to compare the two trends, rather than to describe each one in turn. Good answers flagged up another key trend - which is that immigration always surpasses emigration.

Question 5(d)

This was a question where many candidates lost marks through the use of extremely weak geographical generalities such as “better” or “nicer” climate / lifestyle (such loose remarks do not receive a point mark reward at AS-level). There was also a focus from a number of candidates on push factors. Nevertheless, there were still many who scored maximum marks through accessing a range of specific push and pull factors related to the climate / economics / cultural landscape of Spain and the UK - as well as the enabling role of better / cheaper communications and the drift of entire family and friendship groups. Some also referred to Purchasing Power Parity, rather than just saying that costs in Spain were cheaper. There was some confusion still over the issue of pension payments and relative cost of healthcare but overall this question was well answered.

(d) Explain why some retired British people have chosen to live overseas in recent years.

(5)

- Climate is alot nicer in France and Spain were most have emigrated to.
- a lot of things are cheaper so they are able to live more comfort lifestyles than if they had remained in the UK.
- ~~They~~ They have more money now so are able to do so.
- Better health care for the elderly so they see it as an opportunity.



ResultsPlus
Examiner Comments

This response only scored 2 marks.



ResultsPlus
Examiner Tip

Avoid comments like “nicer” and “things are cheaper” at AS-level. Without any further detail provided it is impossible to gain credit for such assertions.

(d) Explain why some retired British people have chosen to live overseas in recent years.

(5)

The main reason people move overseas is for a better quality of life. An example is to the Mediterranean and Spain where the climate is on average 10°C warmer each year. Also you get a much larger house for your money and basic amenities can be cheaper meaning people don't have to work. Also now with cheap and fast air travel, it is much easier and more accessible. Things like the internet also mean people can purchase the same goods as they would at home and still contact their friends with technology such as webcams and 'facebook'.



ResultsPlus

Examiner Comments

This provides a good comparison with the other example - look at how data is provided (10C warmer). The cheaper costs are also identified.

Question 6(b)

The majority gave a sensible reason here.

Question 6(c)

Good knowledge was shown by some candidates of the range of sources available for study to glean a wide variety of statistics. Official and non official sources included the national census (though not always explaining how it could be used), local newspapers, diaries, photographic / artistic evidence, oral history, local clubs and facilities and attendance records. There was a disappointing number who knew what indicators to look at (e.g. employment figures) but failed to mention where you would look to find them - the question focus being on sources of data after all. It was also evident from a number of responses that some small-scale local investigations had been carried out - so it was pleasing to see 'fieldwork' referred to. Perhaps the most interesting response came from the candidate who suggested that you could "hire a historian". Some candidates did score very poorly overall on this question - suggesting a Specification knowledge gap.

(c) What research sources could be used to investigate social and economic changes in a local population?

(4)

You could look at a local census. This will provide information of ages of people & earnings. You could look at birth & death records showing life expectancy through time as well as birth & death rates. You could also look at employment & marriage records to see jobs that people had over time as well as marriage ages & sexes.



ResultsPlus

Examiner Comments

There was enough range of actual sources here for full marks to be awarded.

Question 6(d)

Many candidates clearly were unprepared for this question. There was a lot of misunderstanding here about the nature / meaning of the word “colonies” despite this being an important teaching strand in the Specification. Some talked exclusively about EU migration (only one mark was left available for non-colonial answers). In contrast, good responses directly related to colonial responsibilities and the labour needs (both professional e.g. NHS and “blue-collar” work in the 1950s and 1960s) of the “mother country”.

(d) Explain why many European nations, such as the UK, have experienced large-scale immigration from their former colonies since the 1950s.

(5)

The UK encouraged immigration from former colonies because the working population had been reduced by the second world war. Former colonies such as Jamaica were given easier access into the UK such as being given British passports. Improved boat technology made it easier for vessels such as the wind rush to transport immigrants and these historical ties with Britain including social and economic encouraged those from former colonies to emigrate combined with a hope of higher wages.

(Total for Question 6 = 12 marks)



ResultsPlus

Examiner Comments

The candidate knows the topic and provides enough detailed explanation for full marks.

Question 7

A very popular question although responses to part (a) were sometimes disappointing. Candidates were stronger on knowledge of the geography of human risk factors than they were on the basics of plate tectonic theory, with many answers revealing unsound and insecure understanding. There are still a significant number of candidates who confuse conservative and constructive when describing direction of plate movement, likewise with convergent and divergent. In-plate volcanoes were most frequently ignored, although there were one or two excellent accounts of the Hawaiian plume (that was situated in the middle of Figure 7). Most exemplar references were based on the area of the resource but there were a number of appropriate references to the Atlantic / Western Europe areas.

Part (b), surprisingly, gave a wide variation in standard of answers considering the two areas are compulsory study. The main factor seemed to be whether the candidate decided to discuss the hazards as well as the vulnerability element or whether to focus on the latter, almost entirely in many cases, with only a brief list of hazards supplied. The best responses looked at common hazards and how cause and vulnerability varied with them, quoting specific events, and then dealt with the hazards they regarded as location specific. These responses showed sound understanding of processes, were detailed and easily reached Level 4. Common errors included attributing to California a huge volcanic risk or a destructive margin El Nino/La Nina was mentioned by quite a lot of candidates but there was often confusion over which was which when it came to the accompanying hazards. If there was an imbalance between the two areas, the Philippines seemed to be dealt with in more detail and with more specific hazard knowledge than California.

Some places are more at risk than others at experiencing a major volcanic disaster because of where the places are situated in relation to different plate boundaries for example highly explosive volcanoes often occur along destructive plate boundaries because of increased pressure around the Benioff zone. eg. The Philippines is situated astride a destructive active plate boundary (where the ~~oceanic~~ ^{Philippines} oceanic plate is being subducted beneath the Eurasian plate. ~~as~~ ^{Philippines} this leads to ~~62~~ numerous destructive ~~earthly~~ volcanic eruptions here. Volcanic eruptions also take place at Hotspots

(areas of particularly high heat flow in the lithosphere)
eg. Hawaii

and at constructive plate boundaries where
the two plates move apart creating ridges
(eg. the mid-atlantic ridge) and can create
entire island islands eg. Iceland. figure 7

depicts a high level of volcanic around
the pacific ring of fire, this is because
of ^{the} high amount of ^{constructive} ~~constructive~~ and
destructive plate boundaries.

The Philippines ^{are} is a group of 7,000 small
islands ~~between~~ on the latitudes 5° north to

20° north of the equator, it lies on an active
(destructive) plate boundary ^(they have 17 active volcanoes) and experiences a

high frequency of explosive volcanoes. The

Philippines also experience a high frequency
of destructive earthquakes ^{because of high pressure levels in the} (in 400 years ²⁰⁰⁰ ~~2000~~
they have experienced 6.5). They are at a

major risk of tropical storms because of
their latitude and experience them

on average 4-12 a times a year with
an average annual death toll of 529 and
average cost of \$90 million. ^{The majority of the} ~~they have~~

population ^{live} ~~live~~ on the coastline and so
because of poor land management, or rapidly

increasing economy (they are a R.I.C.) and poverty

they have cleared ^{the} ~~their~~ mangroves which
give them some natural protection from

tsunami's (of which they can have some locally

generated Tsunami's which have an arrival time of 3-5 minutes) with an ever increasing frequency of Hydrometeorological disasters ~~to~~ mudflows and landslides are ^{highly} likely and devastating. ^{El Niño} events like La Niña ~~eg. landslides from~~ years also increase the risk of ^{flash} flooding.

California is ~~to~~ ~~North~~ on the west coast of North America. it is on the a conservative plate boundary (with the Pacific plate moving 6 times faster ~~to~~ than the North American plate, ~~to~~ both moving in a north-easterly direction) this leads to a high frequency of earthquakes often 7+ on the Richter scale. for example the 1989 world series ~~quake~~ earthquake, San Francisco. ~~to~~ The earthquake had a 6.9 on the Richter scale and caused 62 fatalities when the Nimitz highway collapsed. They coped very well. The ^{Area} ~~canal~~ also experiences ~~to~~ El Niño events. The La Niña years (1-2 years) and El Niño years (1-2 years). There is an increased risk of wildfires in La Niña years as the Santa Ana wind from the Arizona desert.

~~to~~ ~~to~~ Photochemical Smog is a major man-made hazard in California as the dry descending air from the Sierra Nevada mountains traps car emissions ~~to~~ (NOx, CO, CO₂) in a pollution plume this is like passively smoking 27 cigarettes a day in California and leads to asthma, respiratory problems and premature death.

The Philippines is vastly different to California as it is a RIC (recently industrialised country) and has a low-middle income. Poverty is a major factor when a disaster occurs and can mean that the Philippines cope badly and increases the vulnerability eg. the disaster risk equation.

California is a very affluent economy with 40 million people, it copes very well because of it has the money for the three P's Prevention, Prediction (eg. Hawaii tracking center) and Preparedness. This means although it has a high vulnerability (because of the coast and ravines) ^{and} a high disaster risk. It ~~it~~ means there are low fatalities but high economic losses.

This is different for the Philippines as it has a high fatalities in a disaster and low economic loss because of the high disaster risk, high vulnerability and low ability to cope (in the disaster risk equation)



ResultsPlus

Examiner Comments

This is an extract from a Level 4 essay and gives a good indication of the level of competence we hope to see when compulsory case studies are being examined.

Question 8

Candidates generally picked out the extreme values shown and accounted for the differences, notably for China, the USA and Bangladesh (the high per capita figure for Saudi Arabia eluded most candidates, as did the complete set of figures for Singapore). There was limited explanation of the differences of total and per capita emissions in weaker responses. However, the topic has clearly been well taught in many centres and it was good to see the breadth and depth of knowledge and understanding that many students have. Some showed impressive current-affairs knowledge, especially of China's progress.

Part (b) was well answered the majority had good knowledge of long and medium term evidence and there were some strong responses from candidates who were evidently conversant with a wide range of potential data sources that could be used for evidence across the main time scales. Most could give some account of a selection of methods: ice cores, pollen counts, tree rings, retreating glaciers and CO₂ data were all popular choices. A pleasing number also began to evaluate the reliability of the evidence. On the face of it this was a very straightforward and accessible question and it was surprising that it attracted a relatively low number of responses overall.

a) Plan

Intro - more GDP, more CO₂ emissions, population etc.

Paragraph 1 - higher GDP ~~USA~~ emissions - USA and China, reasons

Paragraph 2 - medium emissions - Brazil and Singapore, reasons

Paragraph 3 - low emissions - Bangladesh and Singapore, low emissions.

Essay

CO₂ emissions vary massively between different countries with China emitting 6,028 million of tonnes in 2007, but Bangladesh at 40 million. This is due to many reasons such as consumerism and a higher GDP, but also population and levels of industrialization.

Firstly countries such as China and USA produce high levels of CO₂ with 6028 and 5769 million tonnes respectively, and this is due to different reasons. The USA has a very high GDP rate at \$47,440 per capita, meaning they have the ability to travel more on flights and cars producing more CO₂. It is a very developed nation with electricity in every home, meaning more fossil fuels need to be burnt to provide the electricity for the nation. Also it is a very high consuming nation and wastes many resources, so

emits even further CO₂. China on the other hand is a newly industrialised country so has many factories and ~~large~~ dense urban areas, that emit massive levels of CO₂. However China does not have a high CO₂ emission per capita compared to the USA, with only 4.6^{million tonnes} per capita, this is because China has a very large population with a one fifth of the world's population, ~~but~~ the USA doesn't have this level of population so emits more CO₂ per capita at 19.1 million tonnes.

The countries that emit medium amounts of CO₂ are Brazil and Saudi Arabia with 347 and 358 million tonnes CO₂ emission respectively. This is because Brazil is only a ~~making~~ developing country so don't have high amounts of wealth that MEDCs have, and therefore don't have the capital to produce such high levels of CO₂ as they can't pay for transport, electricity and resources as easily. Saudi Arabia is an OPEC country and a massive producer of oil, this explains their emission of CO₂ as they contribute large amounts through ~~releasing~~ petrol in factories and industries, this also explains why there is more CO₂ per capita at 14.8 million tonnes in 2007, as they produce so much oil for a small country.

Finally countries such as Bangladesh ~~and~~



ResultsPlus

Examiner Comments

This shows part of the candidate's response to part (a) - a "text book" approach that provides an analysis of the Figure which also draws on the candidate's own knowledge. This scored full marks.

Question 9

Most candidates made good use of the resource to convey a clear understanding of the concept of a shrinking world. Less frequent was the reference to groups of people or the existence of a two-speed world. Some responses stayed rather general: there was not much use of specific examples but they were effective in the responses where they were used. In the best answers, there was additional mention (beyond Figure 9) of technologies that included Concorde, GPS and Blackberry. Some focused well on different types of connections.

Responses to part (b) were often well understood and elicited a range of groupings, many responses gaining L3. Wealth groupings were commonly cited and there was also good knowledge of a range of trade blocs. Less frequently cited were political or other economic groups such as OPEC, OECD or G8. "Switched on" and "switched off" groupings was another approach that was used to good effect by some.

(b) Nations are classified into different global groupings economically. This is where the groups have similar economic wealth, but not necessarily similar economic interests. This ranges from LDCs, which are the 50 least developed countries in the world, many of them in the continent Africa. They are classified in this way by having less than \$750 over a three year average, low human basic services and necessities; such as access to healthcare, education and are usually vulnerable to economic damage easily; such as not relying on agriculture which does not provide a steady income. Another economic grouping is NICs, which are countries that are industrialising and are also associated with the BRICS; containing Brazil, Russia, India and China. These countries are seen to be have an increasing amount of power, and with China for example will soon take over USA economically; and have the next power. Another economic group are the ex-Soviet countries, who

are not quite as developed as NICs, due to limitations they experienced until the 1990s after the cold war. They are however now increasing their economies by making use of natural resources. NICs are powerful economic groupings with the largest economies, which work together to

**ResultsPlus**

Examiner Comments

This is taken from a question that scored 25/25. The candidate has an impressive understanding of the topic and writes fluently. The work is well-structured (remember that this is being assessed too).

Question 10

Changes in size tended to be treated more cunningly than changes in distribution. Most candidates knew and provided the definition of a mega-city; LA, Mumbai and Sao Paulo were sometimes referred to in some detail to support the idea of changing sizes. While most candidates identified the main distribution change - an easterly shift - fewer could give much explanation although there were some decent TNC-based attempts. Some high-scoring candidates highlighted the importance of 24 hour business in the global hubs of Tokyo, London, New York (due to time zones) and linked this to the 'shrinking world' concept.

Good answers to part (b) discussed more than one megacity and their challenges. Some compared Mumbai with LA; their different challenges, clearly linked to level of development, were drawn out. Less successful were those candidates who looked at more than one city but restricted themselves to similar levels of development as they were unable to identify different challenges, just more of the same.

and over crowding healthcare is a massive challenge because people are dying due to lack of healthcare which is leading to even more challenges such as high population birth rates and low birth life expectancy at birth.

Governing a city of over 10 million people is a huge challenge because there are so many people this is why many megacities such as Lagos are governed by 'area boys' or gangs with unauthorised taxes and violence.

With such a huge amount of people pollution and waste disposal is a challenge because there is an extreme shortage of space and nowhere for the waste to go.

Overall the biggest challenge to megacity growth is planning houses ^{and} sanitation, this can be ~~done~~ ^{overcome} by pre planning where future growth ~~of~~ of housing will be done and

install commodities such as water and sewage systems so that places such as dhuravi are better planned. So people do not arrive in megacities looking for employment and end up with a worse life than they had before however life in rural areas is often so much

**ResultsPlus**

Examiner Comments

This is another well-structured piece of extended writing that is very well-focused on the concept of "challenges" and received a Level 4 mark.

Section B

Looking ahead there are a number of issues that centres may wish to consider when planning for the Summer 2011 and 2012 examinations:

- Candidates should be encouraged to see the Section B questions as a 25 mark 'package' and to choose their questions on the basis of which question they can do the best justice to across the 10 mark part 'a' and 15 mark part 'b'.
- Some candidates need additional help to focus on the different meaning of command words (describe, explain etc) and more technical key words (mitigation, natural disaster, post-colonial). Failure to 'unlock' the meaning of these words is often a reason for poorer than expected performance on some questions.
- The climate change topic does contain technical aspects to it, such as greenhouse effect processes, feedback mechanism, natural mechanisms of climate change and the reasons for sea level rise. Some candidates confuse these processes and / or discuss them in partial terms.
- Some areas of teaching do need updating, such as migration, to reflect recent changes in patterns within Europe especially.

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 publications@linneydirect.com

Order Code US026343 January 2011

For more information on Edexcel qualifications, please visit
www.edexcel.com/quals

Edexcel Limited. Registered in England and Wales no.4496750
Registered Office: One90 High Holborn, London, WC1V 7BH

Ofqual




Llywodraeth Cynulliad Cymru
Welsh Assembly Government

