

Examiners' Report
June 2015

GCSE Geography B 5GB3F 01

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Introduction

This was second year of this style of geographical decision making paper, formerly and still informally known as a decision making exercise. Without a pre-released booklet the test for candidates was to absorb information from the resource booklet about a clearly defined set of geographical concepts and contexts before moving on to make a choice about the best way of moving forward. They can draw on knowledge and understanding gathered from both of the other exam units and use a grasp of fairly generic concepts based around sustainability but also other themes. The most important skill is the ability to deconstruct questions successfully, which includes the comprehension of the key terms. To be precise it is obviously helpful to know what constitutes an 'economic' reason or a 'social' cause and above all, to understand that almost all decisions are going to be compromises and that there will always be some who benefit more than others and always some who do not benefit at all. Other skills that are likely to be tested in future include the description of patterns, trends and distribution especially, but not exclusively, from maps. Once again as much practice as possible is clearly helpful. Having practised on last year's paper and, perhaps, the Iceland sample paper many candidates produced much more sophisticated arguments in their extended answers to Question 4.

Question 1 (b) (i)

The very uneven distribution of urban settlements was explicable using a variety of the resources, especially the maps, and candidates had been led towards several possible answers relating to both climate and water resources in general. A minority made the connection effectively but many became diverted by other factors.

This response scored 2 marks.

(b) Study Figures 1a and 1b.

(i) Outline **one** reason for the distribution of urban settlements.

(2)

There are more settlements towards the east of the Ogallala aquifer due to the high precipitation.



ResultsPlus
Examiner Comments

This has a location and a reason.



ResultsPlus
Examiner Tip

Always develop points when asked to 'outline' for two marks.

This response was awarded 1 mark.

(b) Study Figures 1a and 1b.

(i) Outline **one** reason for the distribution of urban settlements.

(2)

Most of the urban settlements are in the cooler parts
and parts that have good precipitation.



ResultsPlus

Examiner Comments

This makes the point about rainfall although rather clumsily - 'good'? The other point is invalid and is a second reason.



ResultsPlus

Examiner Tip

If asked for **one** reason there is nothing to be gained by offering two.

Question 1 (b) (ii)

This was much better answered than Question 1(b)(i) with the unusual, but very clear relationship, being understood by most candidates although not enough of them added any detail by way of the use of data to add a second mark.

This answer scored 1 mark.

(ii) Outline the relationship between precipitation and height in the Ogallala aquifer.

(2)

the lower the height the higher
the precipitation is.



ResultsPlus
Examiner Comments

It is a shame that there isn't any data here.



ResultsPlus
Examiner Tip

If you have figures then use them!

This response was awarded both marks.

east gets more precipitation.

(ii) Outline the relationship between precipitation and height in the Ogallala aquifer.

(2)

The higher the people are, the less precipitation will fall. This is shown as the west is very high up and gets very little precipitation whereas the east is low and gets a lot of precipitation.



ResultsPlus
Examiner Comments

This answer gets its second mark from the use of location.



ResultsPlus
Examiner Tip

Maps have scales and compass points - try to use one or both in your answers.

Question 1 (b) (iii)

As with many other questions clues for this were in the Resource Booklet. All that was required from candidates was some attention to that booklet and an understanding of the question. It was disappointing that a minority of candidates found the reference to mountains acting as a barrier and the 'rain shadow' effect which was specifically mentioned.

This response scored 1 mark.

(iii) Suggest **one** reason for this relationship.

(2)

It rains less in bar land areas
because of the rain shadow effect.



ResultsPlus
Examiner Comments

The shadow effect is here but not the cause of that shadow.



ResultsPlus
Examiner Tip

Make sure that explanations are clear - in this case, why is there a shadow?

Question 1 (c)

Once again clues abounded in the booklet and those that found them managed better on this question, than on its predecessor, to make sense of that impact linking reduced rain (or increased temperature) to a shrinking aquifer. Some of the answers suggested that they had only a tenuous grasp of what aquifer water might actually be but it didn't inhibit them here.

This answer was awarded both marks.

(c) Describe the possible impact of future climate change on the aquifer.

(2)

The possible impact is that rainfall will reduce meaning so there's less ground water. However there will be an increase in temperature over that area.



ResultsPlus

Examiner Comments

This is a simply stated but effective response.



ResultsPlus

Examiner Tip

Make sure the focus is on the question as in this example.

(c) Describe the possible impact of future climate change on the aquifer.

(2)

The 'Rocky Mountains' of the west act as a barrier to the weather system, leaving an impact of ^{climate} ~~climate~~ & change. This could then lead to the aquifer ^{disappearing} ~~disappearing~~ in the 21st century.



ResultsPlus

Examiner Comments

The consequence is correct but the cause is only partially here and isn't related to climate change so only one mark.

Question 1 (d)

The most popular choice was Nebraska but not all answers could provide a very satisfactory logic for their choice. As the mark scheme suggests the key ideas here, in reality, are likely to be the possible alternative water sources through higher rainfall and more available river water reducing dependency and the level of demand. But it is also possible to argue that dependency is also a function of an excess of water availability in the aquifer leading to greater use and so, arguably, higher dependency which is the line that the Nebraska 'gang' often chose to take.

All 3 marks were awarded here.

- (d) Study Figure 1c which shows the size and thickness of the aquifer in 8 states.
Use Figure 1c and also Figures 1a and 1b.

Identify **one** state that is likely to use the Ogallala aquifer for a large part of its water supply.

Explain your choice.

(3)

Chosen state

Nebraska

Nebraska is to the north of the aquifer where there is the largest amount of water. Nebraska has seven settlements with around 20,000 people to supply with water each.

Nebraska also has the most precipitation out

(Total for Question 1 = 16 marks)

of the 8 states. This means that the area of the aquifer is most reliable as it is recharged more often.



ResultsPlus

Examiner Comments

This is a strong response with both supply and demand tackled effectively. It has the logic that they have a lot, so they use a lot as well as needing a lot!



ResultsPlus

Examiner Tip

This is a good example of a well-organised answer.

This answer, on the other hand, did not score any marks.

(d) Study Figure 1c which shows the size and thickness of the aquifer in 8 states.
Use Figure 1c and also Figures 1a and 1b.

Identify **one** state that is likely to use the Ogallala aquifer for a large part of its water supply.

Explain your choice.

(3)

Chosen state ~~Colorado~~ Nebraska

This state has ~~a very high~~ precipitation a very high average annual precipitation reaching 800 mm. This is likely to be used because they would not have much ~~space~~ ^{land} to store all the water, causing the water to be irrigated back into the river. The climate is moderate, its not too hot or too cold, its very mild in temperature.



ResultsPlus
Examiner Comments

This lacks the logic of the previous example and drifts off into irrelevance.



ResultsPlus
Examiner Tip

Try to stick to the point by referring back to the question.

Question 2 (b) (i)

This was well answered and provided a decent platform for later answers. Candidates usually obtained their second mark through offering a reasonable example.

This response gained 1 mark.

(b) (i) Define the term **renewable resource**. (2)

Never runs out you can renew it and it will never run out



ResultsPlus

Examiner Comments

There is only one idea here and no example is offered.



ResultsPlus

Examiner Tip

Examples will not always provide marks but they often will!

This response scored both marks.

(b) (i) Define the term **renewable resource**. (2)

A source of energy that can be used without ever ending.
These are mainly natural sources such as, waves (Hydro-electric power), sunlight (solar power) and more.



ResultsPlus

Examiner Comments

This answer has several examples.

Question 2 (b) (ii)

This too was reasonably well answered but many candidates seemed reluctant to develop their point. 'It will run out' was the common starting point which simply needed some data or perhaps a qualification to pick up the second mark. Too many marks were lost across the paper by candidates' failure to take account of the mark tariff. Constant reminders that it is imperative to say two things if two marks are available would appear to be the message to candidates; this is not an original message but one for which candidates at this level need particular coaching.

1 mark was awarded for this answer.

(ii) Given current rates of water use, outline **one** reason why the Ogallala aquifer is **not** a renewable resource.

(2)

Ogallala ^{aquifer is not} ~~is not a~~ ~~aquifer~~ a renewable resource because it needs to have water and aquifer are run through water and that could reduce causing aquifer to disappear.



ResultsPlus
Examiner Comments

The candidate has the idea that it might disappear but doesn't know why.



ResultsPlus
Examiner Tip

The clue here is 'Given current rates of water use...'
Questions are designed to help candidates think about the relevance of their answers. What are the current rates of water use compared with recharging rates?

This answer scored 2 marks.

(ii) Given current rates of water use, outline **one** reason why the Ogallala aquifer is **not** a renewable resource.

(2)

The water that has been sourced from the aquifer is well above the amount that should be used so that it can be filled up and kept on using and so it will eventually run out meaning it cannot be used again so it is not renewable.



ResultsPlus
Examiner Comments

By contrast this answer developed the idea of supply and demand.

Question 2 (c)

This wasn't an easy graph because it showed cumulative data so it clearly discriminated effectively with some candidates reading the levels of corn produced for ethanol fuel as starting at about 1.6 billion tonnes and ending at 2.4 billion. Thus they usually described that as an increase for which they were rewarded but nothing much else could be credited. Those that started with a production of about 0.2 billion tonnes were in a much stronger position to describe changes and trends over the years.

1 mark was awarded for this answer.

(c) Study Figure 2c.

Describe how the use of corn for ethanol fuel changed between 2001 and 2011.

(3)

more Ethanol is being ~~ped~~ produced
meaning that less corn is
being grown



ResultsPlus
Examiner Comments

A very general idea is offered here but it is not developed.



ResultsPlus
Examiner Tip

When faced by a resource with figures involved than use the figures in your answer.

This answer was awarded 2 marks.

(c) Study Figure 2c.

Describe how the use of corn for ethanol fuel changed between 2001 and 2011. (3)

The use of corn used for ethanol fuel between 2001 and 2011 has increased. In 2001 it was ~~0.2 billion~~ ^{0.2 Billion} tonnes of corn being used for ethanol fuel whereas in 2011 1.3 billion tonnes of ~~fuel~~ ^{ethanol} corn was being used for fuel.



ResultsPlus

Examiner Comments

Increase is noted and appropriate data is added - it is a shame that a little more isn't squeezed out of it.



ResultsPlus

Examiner Tip

There were three marks for this question - it's worth thinking about where the marks might be awarded. Is the increase constant?

Question 2 (d)

This, like so many other questions, really relied on candidates being able to use the Resource Booklet effectively and add something to the general idea of it being 'very important' for which they were credited. Sadly many didn't add anything, sometimes lapsing into explanation or simply failing to trawl the booklet effectively for the data.

This answer was not awarded any marks.

(d) Study Figure 2d.

Describe the importance of the Ogallala region for agricultural production in the United States.

people use more corn (maize)⁽²⁾ and wheat than beef and cotton.



ResultsPlus

Examiner Comments

This is a curious response that seems to miss the point.



ResultsPlus

Examiner Tip

Read questions carefully and note the key words.

1 mark was awarded here.

(d) Study Figure 2d.

Describe the importance of the Ogallala region for agricultural production in the United States.

The Ogallala is extremely important because it has a high percentage of agricultural production in the USA⁽²⁾



ResultsPlus

Examiner Comments

It is a shame that the candidate didn't add some details.



ResultsPlus

Examiner Tip

If you have details available then use them!

Question 2 (e)

This was answered well by a decently sized minority of candidates who, for the most part, concentrated on the role of ethanol as a biofuel and the growth of the feedlots. The significance of US governments was only very rarely spotted, perhaps (although this is speculation) because the word subsidy was not understood. It goes without saying that the Resource Booklet offered a good deal of data and detail with which to amplify points.

This answer was awarded 4 marks.

(e) Outline **two** reasons why corn has become such an important crop in the region. (4)

1. Corn can be turned into ethanol fuel which can be used to run cars in the US & means a renewable resource is used.
2. Corn is constantly used to feed cattle or turned into ethanol/biofuel. Also, 25 million tonnes of corn would feed 100 million people for a year and so is a easy product.



ResultsPlus Examiner Comments

This is an answer with two basic ideas, both of which are developed. The second idea is rather scrambled but gets a general idea of increase for feedlots before getting distracted.



ResultsPlus Examiner Tip

Try to keep the ideas simple and don't throw in other ideas.

Question 2 (f)

This was very poorly answered or not answered at all. The question has three possible answers all of which can be taken from the booklet but those who had not taken in the significance of irrigation clearly hadn't appreciated the link between crops and feedlots and the concurrent decline of rangeland. This was unexpected.

No marks were awarded for this response.

(f) Study Figure 2f.

Identify **one** change in cattle farming.

There has become a lot more cattle (2)
so that it can keep up with humans.
The more people there are then the more
cattle they need. They may also clone to get
the best meat.

(Total for Question 2 = 18 marks)



ResultsPlus

Examiner Comments

It isn't clear whether there are more cattle and the question does not ask for a reason so there is nothing to credit here.



ResultsPlus

Examiner Tip

Use the information offered - you don't have to look beyond it for your 'facts' in this type of examination.

This response was awarded both marks.

(f) Study Figure 2f.

Identify **one** change in cattle farming.

Cattle are raised on feedlots instead of (2)
ranches



ResultsPlus

Examiner Comments

This is a simple but effective answer.

Question 3 (b) (i)

Those that understood the meaning of the keyword 'economic' answered this effectively with nearly 40% reaching 3 marks or better by linking jobs and income to attitudes. Some, however, hit the economic target by a spray gun approach and thus included many other factors which limited the creditworthiness of their responses. Some were at sea with the word and had little of value to offer.

Here, the answer scored 2 marks.

(b) People living in the Ogallala aquifer region have different views about the use of the aquifer.

(i) Describe **two economic** reasons why people have different views.

1. Because the either work in that industry and refuse to waste the opportunity that is in front of them. which gives them money ⁽⁴⁾
2. ~~They are an environmentalist and care about the land & its taking their jobs away so they lose money~~



ResultsPlus

Examiner Comments

The focus is correctly an economic one but the development of the reason(s) is not here and the answer, which could be readily turned into a 4/4 response falls short. So the concept is understood but the evidence is missing.



ResultsPlus

Examiner Tip

Use the booklet - there are names and details to use to illustrate your answers.

No marks could be awarded for this answer.

(b) People living in the Ogallala aquifer region have different views about the use of the aquifer.

(i) Describe **two economic** reasons why people have different views.

(4)

1 People believe it is the only way to make money

2 People believe it is taking up land room.



ResultsPlus
Examiner Comments

There are several issues with this but above all it isn't clear what 'it' might be. With a little explanation there might be an idea here.



ResultsPlus
Examiner Tip

Writing an exam answer isn't like having a casual conversation - you need to make it clear what you mean.

Question 3 (b) (ii)

Once again, the quality of the answer depended on understanding what 'social' meant. Despite the speech 'bubbles' on the Section 3 resource far too many candidates either repeated something about 'economics' or simply left the question alone altogether.

No marks were awarded here.

(ii) Describe **one social** reason why people have different views.

(2)

one social reason is the use of the land. The use of
aquifers does not take into consideration those such
as ranchers and people coming to eat businesses.
This will give them less opportunity to do their
jobs and they will lose their money. This
also means that population will fall as less people will
want to live here.

(Total for Question 3 = 7 marks)



ResultsPlus
Examiner Comments

This is an example of a candidate who had no real grasp of the meaning of 'social'.



ResultsPlus
Examiner Tip

Learn your key terms!

Only 1 mark was awarded for this response.

(ii) Describe **one social** reason why people have different views.

(2)

because people have different ~~an~~ opinions
because of where they live and what kind of
background they have come from.



ResultsPlus
Examiner Comments

This has a decent basic idea but, sadly and surprisingly, the candidate fails to illustrate it.



ResultsPlus
Examiner Tip

Always offer examples and/or data if you can.
Usually it will be rewarded.

Question 4

With a tariff of 9 marks to which the possible 3 marks of SPaG could be added this final question carried a little under a quarter of the total marks available. Thus it was very pleasing to see that so many centres had obviously trained candidates well in making sure that they at least allowed enough time to answer it. There were many fewer incomplete responses or even answers that showed the signs of having been rushed. It was also gratifying that most responded to the command phrase 'Explain the advantages' admirably; even when their actual logic let them down they at least gave it a go and some even chose to cover the weaknesses of the other options just to reinforce their choice. This was not an obligation but was a useful line of argument. Perhaps the weakest element in most responses was a tendency to pay too little attention to the 'people of the USA'. Most wrote generally about the economy of the region rather than exploring the possible tensions between national and local interests. There are clear opportunities here for practice as Units 1 and 2 are delivered suggesting that students always investigate the unevenness of positive and negative impacts. Occasional 'mini' exercises might help reinforce the need for clear deconstruction of this type of question. Conceptually the vast majority of 16-year-olds have no difficulty at all with the idea of uneven impacts but they can lose their nerve when trying to express it – it is in this area that most practice is needed.

This response scored 8 marks plus 2 for SPaG.

Spelling, punctuation and grammar will be assessed in your answer to this question.

*4 Study the three options for the United States government shown below.

Option 1: Encourage further development of intensive agriculture in the Ogallala aquifer region.
This would increase the use of groundwater.

*create sustainable green.
more food
more fuel
saving resources*

Option 2: Prevent any further development of intensive agriculture in the Ogallala aquifer region.
This would continue to use groundwater at current rates.

could also help to renew resource

Option 3: Replace intensive methods of agriculture with more traditional approaches such as cattle ranching in the Ogallala aquifer region.
This would reduce the use of groundwater.

sustainable renew resource future generation

Select **one** option you think would be the best for the **people** of the USA.

Explain the **advantages** of this option for the people of the USA.

Use information from the Resource Booklet and your knowledge from Units 1 and 2 to support your answer.

(9)

Chosen option 2

One advantage of preventing further development is that the groundwater may begin to renew itself as there would be no increase of its use, this is good for the people of the USA as it would increase sustainability, helping to provide for future generations.

Another advantage is that although ~~the~~ ^{any} further development ~~is~~ ^{is} prevented, there is already a large amount of intensive agriculture. ~~already~~. This is good for the USA people as there would still be consistent production of corn. This can ~~can~~ ^{can} be seen ~~there~~ ^{to have} when looking at figure 2c, ~~it~~ ^{it} can be seen ~~there~~ ^{there} ~~increased~~ ^{increased} corn production ~~and~~ ^{and} ~~the~~ ^{the} ~~increased~~ ^{increased} ~~use~~ ^{use} of ethanol fuel. Ethanol fuel is an alternative car fuel, as it produces ~~less~~ ^{less} pollutants ~~and~~ ^{and} is a renewable source, it also preserves some of the fossil fuel reserves. This ~~process~~ ^{process} causes ~~more~~ ^{more} sustainability ~~for the environment as~~ ^{for the environment as} ~~it~~ ^{it} ~~is~~ ^{is} ~~good~~ ^{good} for the USA population and decreases global warming contributions.

A social advantage of option 2, is that it sustains crop production meaning the people benefit from intensive farming ~~from~~ ^{at end} cattle ranching giving more food sources such as meat and corn. ~~It is said~~ ^{It is said} that '25 million tonnes of corn would feed 100 million people for a year'.

A ^{stake} increase of intensive farming ^{use} can benefit the USA's population as the amount of corn used in export production could increase meaning businesses would gain more profits from trade. This can also benefit the country economically as it could increase international trade with the UK USA leading to more imports. The Ogallala population ^{rely} on the aquifer for their water; prevention of further development will help preserve the Ogallala resources meaning the population still benefit from this water resource. *

Overall, I have chosen option 2 to be the best most advantageous for the USA people as although it still remains to be up the aquifer, what it do people would seriously struggle, as it helps to bring in income for the local people.

Environmentally, the land is being used effectively to produce the highest yield of food production. People may benefit from further restrictions as it reduces any further damage to the ~~environment~~ environment caused by methane from cattle. This can create a better environment ^{to living in.}

Also restrictions reduce the amount of wildlife areas mined by deforestation, meaning no more open space or forestry is lost from the growing agriculture industry. This also helps the residents to retain their land from corporational building.



ResultsPlus

Examiner Comments

This is a strong and well-focused response that addresses the question directly and draws on the resource booklet effectively.



ResultsPlus

Examiner Tip

Keep using the words in the question - it will keep you focused.

This answer was awarded 4 marks plus 2 for SPaG.

Spelling, punctuation and grammar will be assessed in your answer to this question.

*4 Study the three options for the United States government shown below.

Option 1: Encourage further development of intensive agriculture in the Ogallala aquifer region.

This would increase the use of groundwater.

Option 2: Prevent any further development of intensive agriculture in the Ogallala aquifer region.

This would continue to use groundwater at current rates.

Option 3: Replace intensive methods of agriculture with more traditional approaches such as cattle ranching in the Ogallala aquifer region.

This would reduce the use of groundwater.

Select **one** option you think would be the best for the **people** of the USA.

Explain the **advantages** of this option for the people of the USA.

Use information from the Resource Booklet and your knowledge from Units 1 and 2 to support your answer.

(9)

Chosen option Option 3.

I believe that they should decrease the amount of water they are using so that the aquifer can recover. I think that they should ~~make sure~~ that encourage more traditional approaches to cattle farming as there is less land becoming damaged and the Ogallala aquifer region has the perfect land to do cattle ranching however this may also cause problems as there may be a decrease in the production of corn ~~grain~~ which most farmers feed their ~~animals~~ cows.

I believe that Option 1 isn't suitable because the land will become destroyed and people who live in that region will have to move because their ~~land~~ soil will become infertile and hard to grow crops on ~~and~~ but however, the USA will benefit as they are increasing the production of corn and wheat and now big corporations can't come in and take some of the American's water so that it leads to the US becoming more deprived as they aren't benefiting from the resource as there would be a decrease in the amount of production.

I also believe Option 2 isn't suitable because I believe they should reduce the amount of groundwater being used so the land can recover and ~~people~~ people who live there don't have to worry about the land disappearing after a century and giving it time to recover from damage before it is too late and it can never fully recover.



ResultsPlus
Examiner Comments

This would appear to be a relatively unusual example of a candidate who ran out of time.



ResultsPlus
Examiner Tip

Leave at least 15 minutes for this final question.

Paper Summary

The structure of these papers is predictable as are the questions insofar as the skills that they are likely to test. These can be mapped into the teaching of both of the other units so that they become second nature or at least not quite such a surprise as they appear to be for some candidates. Whilst there have been significant improvements in the ability of students to tackle the final evaluative question it is fair to say that the skills have not made such marked progress. Ironically it is map skills that seem the most stubbornly slow to improve perhaps reflecting the satnav revolution in the same way that it is alleged that calculators eroded mental arithmetic skills many years ago or text messaging damages grammatical skills. However, it is also notable that the interpretation of photographs is also weak which, in this age of Instagram and Snapchat, might seem counter-intuitive. For most candidates the photographs on this paper were either ignored or misunderstood. Geographers are multi-skilled but it doesn't come without a certain amount of training and practice; all the more so at foundation level.

So based on their performance on this paper, candidates are particularly advised to:

- practice their map skills
- practice the interpretation of photographs
- read the questions very carefully and, revise all key terms.

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>

Ofqual
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