

GCE Geography G1 1201-01

All Candidates' performance across questions

Question Title	N	Mean	S D	Max Mark	F F	Attempt %
1	5751	13.6	3.8	25	54.2	100
2	5751	14	3.6	25	56.1	100
3a	5695	5.1	1.8	7	72.6	99
3b	5481	3.3	1.8	8	41.7	95.3
3c	5558	4.9	2	10	48.6	96.6

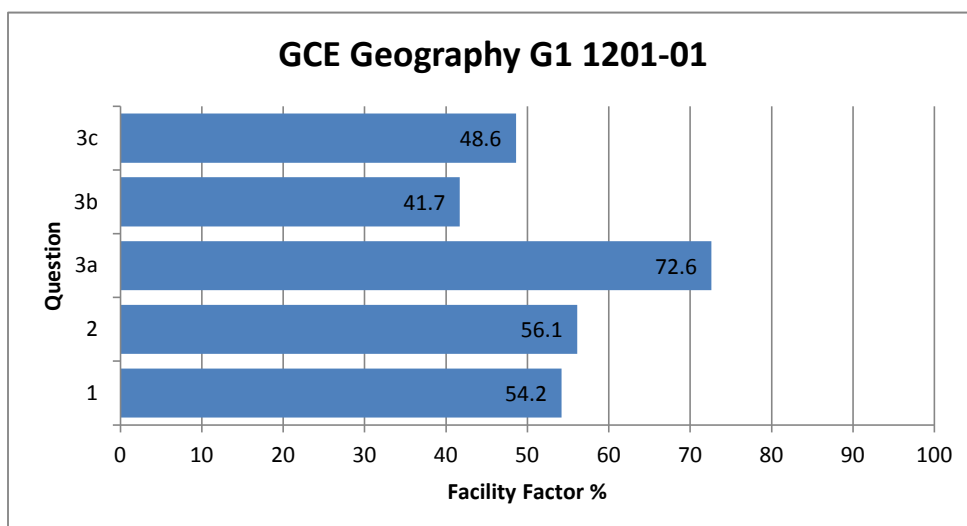
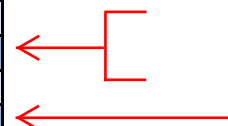


Figure 2: Deaths from earthquakes related to development level and mean magnitude, 1980-2009

Development level	Earthquakes that resulted in no deaths	Earthquakes that resulted in 1–9 deaths	Earthquakes that resulted in 10–100 deaths	Earthquakes that resulted in over 100 deaths
% that occurred in Low Income Countries (LIC)	6.5%	10.1%	9.7%	14.8%
% that occurred in Middle Income Countries (MIC)	70.6%	73.6%	77.1%	76.2%
% that occurred in High Income Countries (HIC)	22.9%	16.3%	13.2%	9.0%
Mean magnitude (Richter Scale)	5.9	6.3	6.2	6.7

2. (a) Use **Figure 2** to describe variations in deaths from earthquakes.

[5]

2a) Figure 2 Shows the Variation in Deaths from earthquakes.

~~The percentage of deaths in low income countries~~

The percentage of earthquakes ~~with~~ that resulted in no deaths was highest in middle income countries (MIC) ~~however~~ ^{this was} ~~the~~ at 70.6%. However the lowest percentage of earthquakes that resulted in no deaths was in Low income countries (LIC) at just 6.5%. This is a difference of 64.1%.

The percentage of earthquakes that resulted in 1-9 deaths was ~~in~~ ^{also} highest in middle income countries at 73.6%. ~~however~~ ^{it was} the percentage of earthquakes that resulted in 1-9 deaths was lowest in again Low income countries at 10.1%.

Overall the highest percentage of deaths were in middle income countries whilst the lowest were in low income countries. However as the Richter Scale score increased the percentage increased.

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2
5

2A Figure 2 shows the total percentage of deaths that occurred as a result of earthquakes; varying from less economically to high economically developed countries. The general pattern shows that it is in HIC's that there are the least amount of deaths however the poorly developed countries ~~experience~~ experience the larger proportion of clear tolls in the event of an earthquake. In the 6.3 Mean Magnitude Earthquake for example, 1-9 deaths were experienced by a low developed country.

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2. (b) Compare local and regional impacts of **one or more** tectonic events.

[10]

2b) The 2010 Haiti earthquake had both regional and local impacts. The epicentre was located 16 miles west of the capital Port au Prince, and it therefore suffered a large number of social ~~and demographic~~ impacts, as well as economic. There was also an impact on the country as a whole.

The economic impacts of the event affected the region as a whole. There was \$7.8 billion ~~of~~ damage, including \$3.5 billion of economic losses. The port was damaged in the way of tilted container cranes, and etc, and this meant that trade suffered and also tourism - Caribbean cruise ships were unable to visit anymore and had to wait several years to do so again. This affected the region as a whole, declining living standards, as an already poor nation, even further.

Local impacts are ~~those of the~~ social and demographic. As 250'000 died, the majority of those were in the capital Port au-Prince. This resulted in a double of the number of orphans to ~~250'000~~ 350'000, and a strain on local health services as many were injured. 60% of hospitals were destroyed in the capital, ~~leaving~~ affecting the standard of health care received for the future, and many schools were damaged, including the 3 main universities such as The University of Carthage.

Overall, the local impacts in the capital were 1'300'000 were made homeless resulting in poor sanitation and the spread of disease - by the end of 2010, 9000 had been treated for symptoms of cholera.

Overall, the local impacts of the Haiti earthquake were the strongest in terms of damaging education and resulting in homelessness. The effects on the region as a whole were economic, as it halted the development of the nation and declined the living standards of the whole country as less money was able to be put into services.

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10/10

b) on the twelfth of January 2010, an earthquake hit Haiti at 7.3 on the Richter scale 25 km away from the capital city of Port au Prince. The local impacts of this tectonic event was the immediate deaths of 230,000 people and injuries of 250,000 people. This earthquake resulted in 1.5m people being made homeless as a result which was emphasised by the destruction of 60% of buildings in Port au Prince. 550,000 people were living in evacuation camps, 150 of which were set up around Port au Prince alone. Additionally, many became at risk of post disaster disease such as cholera, even after Haiti had been cholera free for 100 years and this

disaster led to 6900 people dying from cholera. However, this tectonic event also had regional effects. As a result, there was an increase in internal migration to other areas in Haiti which put a lot of strain on existing resources. This strain was magnified by how 8 hospitals, 9 health care centres were destroyed in the event so people were seeking aid which was why the Dominican Republic opened up their border to allow people to cross and get help. As a result of the event, half of Haiti's debt repayments were cancelled and others delayed for 5 years. The cost of damage however, was over \$11m.

Another tectonic event was the Japanese tsunami in 2011 which was caused by a 9.0 magnitude earthquake, the 5th largest ever recorded. A 40m high wave hit the coast of Japan and travelled 10km in land. The local impacts of this is that the event caused 15,500 people to die and destroyed over 140,000 buildings, 11 of which were hospitals. Many suffered from hypothermia - 10 elderly people died from this. Also, food became very scarce. On a regional scale, water was lost to 1.5m and electricity to 4.7m. The tsunami hit the Fukushima nuclear plant where radiations were detected 220km away in Tokyo.

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/60

2B) One example of a regional tectonic event which had many subsequent impacts would be the 2008 Haiti Earthquake that occurred in Port-au-Prince. Due to this region of Haiti already being less economically developed, the damage caused in terms of social impacts and those economically are usually much greater than those in an earthquake-proof country. The number of casualties experienced in Port-au-Prince were near the proximity of 300,000 people being injured and 2,3000 being dead. This number may have been particularly high due to the initial population being greater than a local region that is affected but also due to flood defences put into place by the specific country. One major economic impact, that is still affecting the residents of Haiti, would be the total cost in cleaning up the damage, i.e. rebuilding of housing and schools so children can continue to be educated was around \$1.1 billion.

A similar tectonic event such as a much less severe on the mean magnitude scale that may have occurred in Wales, would have less impacts and the aftermath of it would be easier to deal with. Due to the developed economy of this area, the financial support that Haiti needed for repair from NGOs is not relevant as they are sufficient resources from the government in order for this to occur. The total

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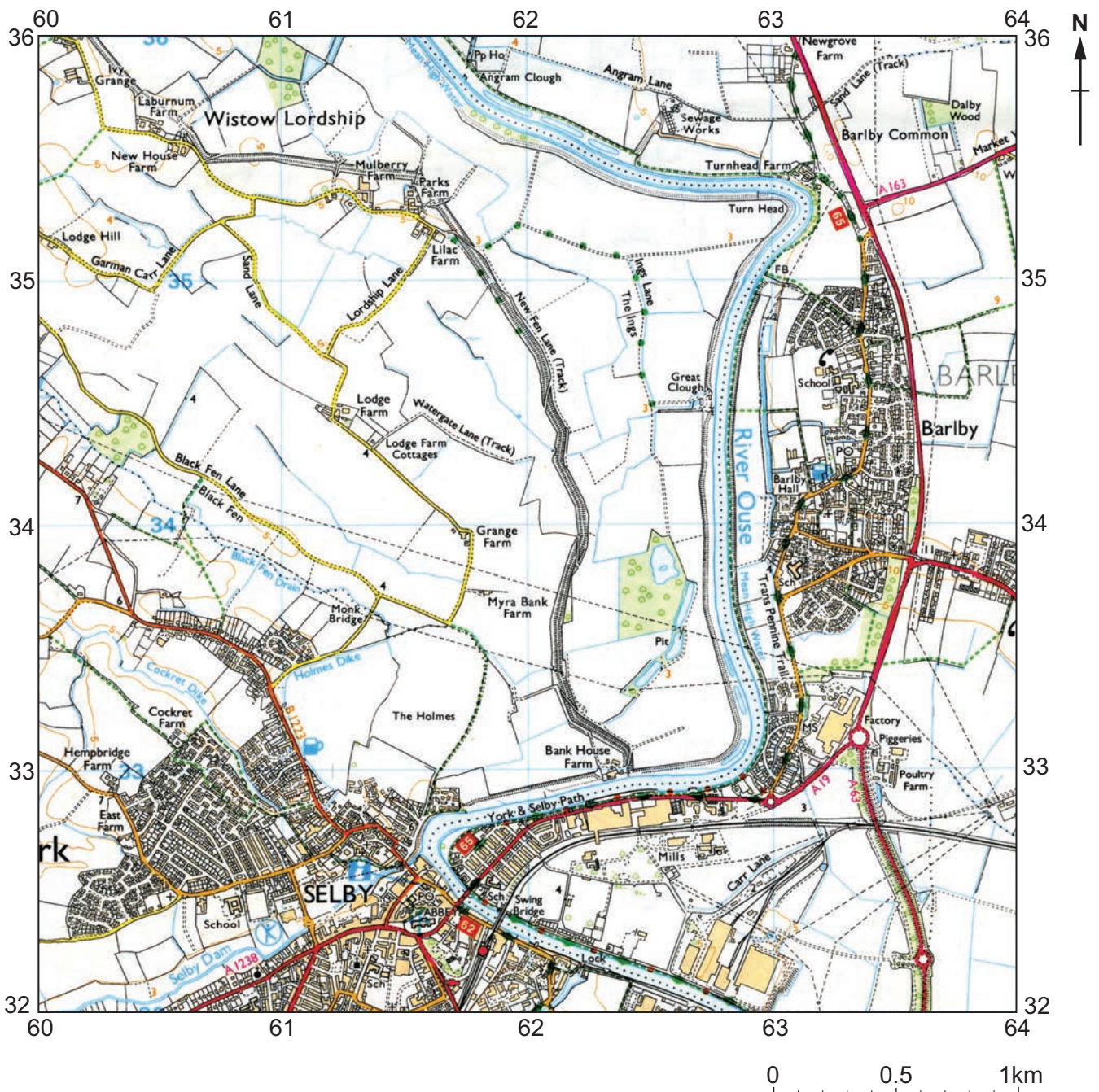
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Figure 3: 1:25 000 extract of part of the valley of the River Ouse, North Yorkshire



3.

- (b) Outline how Ordnance Survey maps can be used in an investigation into changing physical environments. [8]

③ b) Ordnance survey maps are useful for fieldwork as ~~it is~~ they allow you to get an idea of the physical features of a physical environment. This is particularly useful when planning an investigation as it means that you can get a feel for the area and an idea of where steep land relief may be. They also allow you to see the proximity ~~to~~ of roads and services to the areas of conducting fieldwork, meaning that you can easily tell if your locations are accessible : e.g. if you were doing a study on coasts, you may wish to know where the nearest car park was and whether you would have to navigate difficult and potentially hazardous terrain on your way down to the beach. This allows you to make an informed decision on your locations for carrying out fieldwork. Furthermore, newer Ordnance Survey maps can be compared

③b) cont. with older Ordnance Survey maps, as this could allow you to get an idea of how the landform has changed over time - e.g. sudden cliff collapse at Charmouth and Himmeridge may have caused the land to retreat significantly so a map from 1950 would show a different landform to a map from 2013. Maps are also useful in case you get lost while on fieldwork, so it is important to always carry a map of the area with you.

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3b Ordinance Survey maps can be used during the planning stages of an investigation. They can help as they clearly identify features such as footpaths, national trail routes, embankments and bus stations. They can also be used as a method for data presentation. By using a map a secondary source it is very reliable and cannot be biased as you can use it to measure distances as it has a scale. ~~and~~ it can be used for investigations about flooding as depending on the years chosen you can pick a variety which can show you how a town/city has grown and any new features the town has.

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3)b) Ordnance Survey Maps can be used in an investigation as these tell us vital information regarding an area. They are useful in the sense that they tell us the relief of the land and other factors such as the types of roads. The maps are also useful in stating key tourist features along with public rights of way. These help us as it can give us an idea of ~~how~~ whether the area is good for tourism.

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