



Examiners' Report June 2015

GCSE Geography A 5GA2F 01

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

Edexcel and BTEC qualifications come from Pearson, the UK's largest awarding body. 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.btec.co.uk</a>.

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



#### Giving you insight to inform next steps

ResultsPlus is Pearson'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 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

Pearson aspires to be the world's leading learning company. 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 our commitment to high standards and 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>.

June 2015

Publications Code UG041618

All the material in this publication is copyright

© Pearson Education Ltd 2015

#### Introduction

This, the Natural Environment paper, continued in the new format for the June 2015 series. Candidates are now required to answer all topics in Section A, on the physical geography of Coasts, Rivers and Tectonic Landscapes, however at a reduced mark tariff (15). In Section B there is again a reduced mark tariff (20); however, candidates still have the option of either Wasteful World or Watery World topics. The extended writing questions in Section B are also slightly different in that they now carry a SPaG mark of 4. SPaG at Foundation Tier is judged on the same criteria as the Higher Tier paper. Overall, this means that both Unit 2 examinations now have a total mark allocation of 69.

With the new exam layout there is a reminder that the content of the specification had been strengthened. Although centres are now teaching to the new content it was clear that some centres have not taken advantage of the Sample Assessment Materials (2 sets available) which are on the Pearson Edexcel website. Some centres appeared a little unprepared for the focus of the extended writing questions on physical geography topics. We would therefore suggest centres carefully focus on these changes to inform future teaching or attend training provided by Pearson Edexcel.

The paper performed well and the average mark was almost identical to last year. In Section A the tectonics section scored the highest average mark by a significant margin, whereas rivers and coasts had a lower but similar average. 'Coasts' was marginally deemed to be the more challenging section of the paper. In Section B the 'waste' section was again the most popular choice by candidates/centres. It also scored a marginally higher average compared to 'water'.

The rest of this report contains a series of comments, examples and tips which will give centres and candidates guidance on the performance of this series and offer suggestions for future learning.

### Question 1 (a) (i)

Many of the candidates were able to correctly identify the arrow moving from right to left. Some drew the arrow outside of the box, but this did not count against the candidates. Those candidates who did not get credit on this item either drew the arrow in the wrong direction (left to right) or they drew the arrow so that it came onshore. The majority of candidates understood the concept; however, there was a significant minority who simply left the question out.

### Question 1 (b) (1)

Very many candidates correctly identified sediment as the correct answer.

# Question 1 (b) (2)

A majority of the candidates correctly identified the word 'deposited' as the correct answer.

### **Question 1 (b) (3)**

Over half of all candidates identified 'spit' as the correct answer. However, some confused this with the word 'sediment'.

### **Question 1 (b) (4)**

Again, over half of all candidates identified 'lagoon' as the correct answer. Common incorrect answers included 'cave' and 'cliff'.

#### Question 1 (c)

This question proved to be a challenge for many candidates. A relatively small proportion of them understood both fetch and weathering, and therefore few got 4 marks. Of those who put a response in the 'fetch' part of the answer space, and many did not, there was often confusion with the exact definition. Some candidates thought fetch was the wind speed, some the wave power and some the speed of the wave. Relatively few clearly understood the idea of distance over which waves can build. For those that did they often were able to make the link to greater energy and therefore more erosion.

Understanding of weathering was much better, though there are still many who think it is the same as erosion. Many candidates made reference to how a type of weathering led to more recession. The most commonly used were the action of freeze thaw, as water froze in cracks so breaking the cliff, or biological weathering, where root action forced rocks to crack. Some also referred to carbonation. Some candidates were limited by referring to the weathering but failing to make the link to erosion.

The following response was awarded all 4 marks.

(c) Outline how fetch and weathering processes can affect cliff recession.	(4)
The longer the distance the wave has been traveling, the more energy it has . This cause more enosion as the waves are more powers	S <b>es</b>
Weathering processes	***************************************
Weak chemicals can erode the top of the Biological weatering means seeds are dropped b	
annals, the roots grow through the rocks cow	sing
them to breake aff and rife recession occurs.	



This is a fairly straight forward answer with good understanding and application to the question. Here the candidate recognises greater fetch = more energy therefore more recession (this and erosion were often synonymous). They then show a clear understanding of weathering processes, biological in this instance, and show how it leads to more weathering.



Ensure you learn terminology clearly so that you understand the demand of the question. Fetch was poorly understood by many - it is the distance the wind blows over open water - which affects the size, power and formation of waves.

#### Question 1 (d)

Many candidates were able to gain credit through recognition of hard and soft rock using the resource. Some of them were able to link this to the landforms, most commonly headlands and bays. However, few candidates were able to make the link to other landforms or identify other ways in which geology played an important role, and thereby get full marks. Some good answers were able to recognise that the soft rock may be impermeable and therefore subject to mass movement, or alternatively that the rock had faults or weaknesses and was therefore subject to either weathering or faster rates of erosion.

This question proved to be a challenge for some candidates; however, many were able to score either 2 or 3 marks.

This response was awarded full marks.

(d) Study Figure 1b (photograph) in the Resource Booklet.

Explain how geology influences the formation of different coastal landforms.

(4)

The Softer rock is being erated eaiser as it is a less possession more Murrable to Corrassion, corrosion and hydrolic action a rock that may be explained by humable could be live shore. Due to the soft rock which could be Sondstone is less throthy to be eroded by hydrolic action, corrosion to come the soft of the soft rock which could be sondstone is less throthy to be eroded by hydrolic action, corrosion to corrosion so it forms a headland to cause, orches, stads to Stumps which sticks out.



Here, like many others, the candidate focuses mainly on headlands and bays. However, in the first sentence they have some explanation linked to process, which a foundation level answer needed to access maximum marks. This candidate recognises that the harder rocks lead to headlands whereas the softer rocks lead to both bays and beaches. They then develop the point on hard rock to show that it develops into stacks and stumps. This answer has a good range of landforms; clear links to process and clear explanation, therefore all 4 marks were awarded.



In this question headlands and bays were counted as a paired landform. Candidates are encouraged to go beyond a resource and explore a range of landforms when asked; beaches and cliffs are an easy pair of landforms to associate with headlands and bays.

#### Question 2 (a) (iv) (1)

Nearly three-quarters of all candidates recognised that the flooded area was smaller on the chalk than on the clay.

### Question 2 (a) (iv) (2)

The large majority of candidates understood that chalk allows water to pass through it because it is permeable.

## Question 2 (a) (iv) (3)

Again, three-quarters of all candidates understood that Chichester is more prone to flooding as it is on clay.

### Question 2 (a) (iv) (4)

Only two thirds of all candidates recognised that flooding occurs when there is less infiltration and greater runoff. Some confused the answer with interception.

#### Question 2 (b)

This question proved challenging to many candidates. Some candidates simply did not attempt the question. However, for those that did many only scored credit for identifying features from the resource; few were able to explain reasons for the changes.

Of those candidates who did attempt the question, many correctly identified the stage as either upper or middle course (however credit was still possible if they identified lower course and gave correct features). However, the majority of them found it a challenge to apply their knowledge in a new setting, suggesting that candidates would benefit from the opportunity to practise this type of question, using either Google Earth or photographic evidence.

The most common answers recognised that there were large deposits in the channel, or that it was narrow and shallow, or that it seemed to flow slowly. Few recognised legitimate reasons such as a lack of energy to carry the large deposits, or greater friction leading to low velocity. Many simply said things changed, because they did or that the change occurred due to the fact that it was in the named section, not quite an explanation. More practice is needed here.

This is an example of a response that scored 4 marks.

(b)	Study Figure 2b (photograph) in the Resource Booklet.
	River courses are divided into three stages. Which stage of the Virgin River is shown in Figure 2b?

Outline **two** reasons to support your choice.

	Character at	in Plan C	ow/Se		1	(4)
1	Chosen stage	uffer C	ı'S	s sh	=110~	and
*********	18	VZG	recon	it c	ant.	L0/1
************	med	vater	and doSi	est has	re mo	.cheneg
	le pick	up por 6	is rocks a	=S Seen	in the	picke
2	The	river	is a	lso in	a ver	y crea
***************************************	mors wh	er Here	ere 188	of manta	ins /Hill	5 =
*************	top	4.5 3	where	rivars to	- tend	10
	form	S Leter	Aous	doin 4:	11 lova	rd Sthe
		CO~S				



This candidate recognises two relevant, clear points in each part of the answer and then develops each of them. In fact the first part of the answer has a series of points; however, the point on 'big rocks' is developed for the outline. The second point is somewhat obvious, however it is relevant.

This is one of the few examples of a response with two clear outlines, rather than a series of descriptions.



Practice applying your knowledge to a new situation using source material such as photographs and maps. Many candidates struggled with this question as they clearly lacked the confidence to apply their knowledge.

#### Question 2 (c)

Candidates found this question fairly straightforward and they used the framework well to describe the ways in which planning and education reduce the effects of flooding. As planning and education are somewhat interchangeable no restrictions were placed on what was acceptable; therefore, for example, answers associated with building defences were accepted as both planning and as part of education.

Popular answers included the building of defences, building modifications to homes and buildings and distributions of warnings and leaflets. Many were able to link how these methods led to reduced floods. However, many candidates were limited to three marks, simply because they did not refer to an example. Acceptable examples in this case included the work of the Met Office, Defra, the Environmental Agency and any other specific location.

(c) Using examples, describe how the effects of flooding can be reduced through planning and education.

(4)

#### Planning

flooding can be reduced by Planning Secouse People can make changes shops, and make suce that the bunned

#### Education

can be reduced by education because everyone everyone around them is one with the Phenous years of flooding will ensure effect the worst and the least.

(Total for Question 2 = 15 marks)



This answer has two well described points, one on planning and the other on education. However, the failure to refer to any specific examples means that the candidate is limited to 3 marks.



When referring to an example make sure that there is some specific information which relates the point made to that specific example.

#### **Question 3 (c) (1)**

A majority of candidates recognised that seismometers measure earthquakes.

### **Question 3 (c) (2)**

Almost three-quarters of all candidates understood that seismometers detect the energy release in an earthquake.

### *Question 3 (c) (3)*

Very many candidates realised that seismometers help scientists understand an earthquake. Some incorrect answers put 'predict', which is not something seismometers can do.

#### **Question 3 (c) (4)**

Most candidates understood that seismic information helps reduce the impact of earthquakes.

### Question 3 (d)

Unlike Question 2(c), candidates here were required to outline the ways in which planning and education reduced the impact of earthquakes. The majority of candidates scored either 2 or 3 marks on this question. Many were able to recognise relevant methods to reduce the impact of the earthquake; however, not all were able to fully develop these as brief explanation or outline.

The most common answers for 'planning' included earthquake proof buildings or ensuring that local people were aware of the impacts. Education was largely focused around hazard management days and practising drills. Although an example was not required, some of the better answers included reference to measures put in place in a particular place; therefore it is recommended that candidates learn in this way.

Candidates also need to practise the command 'outline', so that they include phrases such as 'which means that' or 'therefore'. This ensures points are clearly linked.

This response was awarded all 4 marks.

(d) Outline two ways that planning and education can reduce the impact of earthquakes.

(4)

If you plan for earthquakes like having Shock absorbers on the bottom of houses then less things would get destroyed also building the houses out of strong matierals can prevent people getting hart and the house tralling down.

If you educate people what to do in an earthquake for example stay away from buildings and it in a building stand under the doorway as it is the strongest then there would be a lot less fatalities.



This candidate clearly identifies two points, develops each one and relates it to reducing the impact of earthquakes. This question requires an outline rather than examples therefore the candidate scores 4 marks for the two outlines.



Candidates must ensure that they relate their point to reducing earthquake impacts. They must also be careful not to 'describe' and instead 'outline', i.e. offering a brief explanation.

#### Question 3 (e)

This question produced a spread of answers. There were some who simply did not answer the question, and there were also many who confused convergence with divergence. However, for those who did understand what was being asked, many candidates were able to score up to two marks for parts of the sequence of formation, which often included convergence and subduction or melting. Few candidates scored full marks. It was clear at this level that candidates were frequently unable to give a full sequence of explanation to include convergence, subduction, melting (magma rising) and eruption. Even fewer could relate the style of eruption with one found at a convergent plate boundary. An understanding of the type of volcanism associated with different plate boundaries should be understood by candidates as unique not generic.

This response scored full marks.

(e) Study Figure 3b (photograph) in the Resource Booklet.

Describe how volcanoes are formed on convergent plate boundaries.

Oceanic and continental places coulde The Oceanic Subducts under the continental place Decause it is slightly denser when it subducts it takes waste and seament with its into the manke where magnia is created as well as co? from the waste pressure is then built up within the manke while while when the waste pressure is then built up within the manke while while surpace and breaks it's way through the surpace and escopoding magnia as well as as as acousts



This candidate has the full sequence and all of the correct details described (and in some areas explained). This includes the process of convergence, subduction, melting and the eruption. The candidate also recognises that the eruption occurs with pressure as an explosion, therefore has the correct context for this type of plate boundary. This is a well understood answer which scored 4 marks easily.



When describing a landform, in this instance a volcano, ensure that you give the full sequence of the formation. In this case, ensure that the description fits the type of plate boundary e.g. convergent.

(4)

### Question 4 (b)

The interpretation of a cartoon is a challenging skill to find the appropriate message in the context of the topic; however, nearly half of all candidates scored 2 marks with a further fifth scoring full marks, proving that this was not too much of a challenge.

Candidates do have a tendency at foundation level, with questions such as this, to look for extraneous detail - such as pieces of paper on the floor or the size of the cartoon character. Yet the majority of answers picked up on the issue of recycling being promoted in the cartoon. However, surprisingly few managed to link this to the throwaway society concept, or our insatiable appetite for new goods, hence scoring mainly 2 marks.

Cartoons are a good way of applying knowledge to a topic to show a level of understanding. Candidates are encouraged to practise this on topics which have a human influence as it is a helpful way of drawing together different themes from a specification.

### Question 4 (c) (ii)

Candidates clearly understand fast-food chain logistics well, as the majority managed to score 1 mark on this question. Common answers included packaging, inability to keep leftover food, or simply waste food.

### Question 4 (d)

Nearly all candidates were able to score either 1 or 2 marks on this question highlighting that the concept of waste disposal is well known. Many gained credit for simply naming an appropriate waste disposal method; however, some did not develop the description of what the method did to dispose of waste. This could have been as simple as 'landfill involves the burial of waste', or 'incineration involves the burning of waste'. Both of these comments would have scored 2 marks.

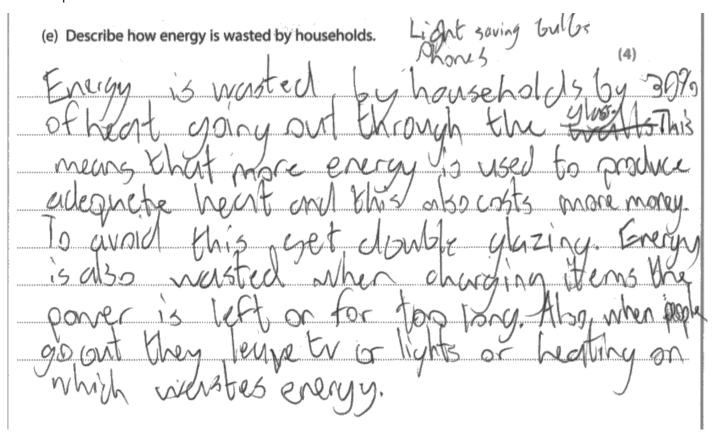
When describing a method, candidates need to focus on 'what' or 'how' rather than going into 'why'.

#### Question 4 (e)

The concept of energy wastage was fairly well understood by the majority of candidates with only a very small percentage not scoring a mark, which was generally due to a focus on managing energy waste rather than on **how** it is wasted.

A favourite answer was the 'leaving appliances on' approach, which is fine; however, the idea was only awarded credit once meaning candidates demonstrated a lot of repetition in their answers. Candidates picked up credit for offering a range of points or developing description. Common answers included lack of double glazing, lack of loft or cavity wall insulation, or leaving the window open. Candidates could also gain credit for making reference to statistical evidence to support their statements. In all, this was well understood as many could apply their own personal circumstances. However, candidates need to be wary of including answers with reference to water which crept in too often.

This response scored 4 marks.





This candidate has loss of heat through windows, with statistics to support their answer. They also recognise that the consequence of this action is to use more energy. They are able to access the full marks focusing on leaving appliances/lights on too long.



Try to use statistics to support description as it can add substance to the point you are trying to make.

#### Question 4 (f)

On the whole it was good to see that most candidates at foundation level were able to distinguish between renewable and non-renewable energy. However, there were a significant number who left this question blank or wrote about coal, oil or nuclear which were not accepted!

Many answers had a focus on the environment; however, answers about wind turbines or HEP were more conducive to scoring higher marks, as those that focused on solar enery tended to look at the social or financial implications and were therefore self-limiting. There were some good answers in reference to wind turbines focusing on the impact on bird migration, loss of land and impact on habitats. Equally those focusing on HEP schemes had similar comments on impact on natural river process, impact on animals or pollution. Those candidates who were able to describe the impact on the environment were able to achieve Level 2 answers.

Some candidates had a series of responses in descriptive form but were limited in their access to Level 3 marks as they did not explain. Good answers in Level 3 were those that tended to focus on a specific example or place as they could often develop their ideas with specificity.

This response scored full marks.

*(f) Explain how the development of one renewable energy source has an impact on the environment.	
(6)	
Chosen renewable energy source Wind turbines	
Wind turbines only create corbon dioxide once	
when they are manufactured & and then they	
Use the wind to creat energy. However they	
can inspact the per environment in other	.4
ways such as the fact that birds can fly	141111
into them which can after their migration	*****
course. As well as this they can take up	нш
lots of room which could destray animals	
natural nabitats. They can effect the environm	leit
for people as have prices may go down if people	ع
do not want to rive near them and some	144444
people May more away.	*****1



This candidate has a range of descriptions which are clearly focused on the impact on the environment. There is the good point about carbon dioxide production in the manufacturing process, and the impact of the turbines on animals and birds. The candidate scores 6 marks even though they have a socio-economic point in the final sentence as they have clear explanation and development in their answer.



When trying to explain at foundation level the use of simple link words such as 'therefore' or 'this means that' enables the linking of two points together and therefore aids explanation.

### Question 5 (b)

This question was generally well understood, with nearly half of all candidates achieving 2 out of 3 marks. Many could recognise that the water management scheme was a dam and many added to this with a comment about what it does, for example storing water, holding back water, or controlling the release of water. Although many candidates did score 3 marks there were surprising numbers who simply stopped with a sentence like 'a dam stores water in the river'.

A worrying number of candidates thought that the dam in question here was holding back the sea, even though there is no sign of this from the resource. Again, practising applying knowledge and understanding from unseen photographs will help candidates develop their confidence in exam situations.

The question asked candidates to describe the method, therefore in this case there was credit for the physical appearance of the scheme, e.g. made of concrete. However, some candidates chose to describe the uses of the dam, e.g. hydro-electric energy or tourism, which did not score credit as it is not directly associated with water supply.

#### Question 5 (c) (ii)

A significant majority of candidates could identify reasons for high water use in HICs. The most common answers included use of white goods or ideas associated with the showering society. Some failed to score marks as they gave answers that were not specific to HICs and ambiguous, such as there is lots of rainfall.

### Question 5 (c) (iii)

Although this was only a 2 mark question, it posed a significant amount of challenge to many candidates. A high proportion of them focused their answer on water use issues rather than supply. This is made all the more difficult by the fact that there are clear links between the two. Therefore, points were accepted for references to both water supply and water use; as long as the problems identified on use were in the context of supply, e.g. overuse leading to shortages. References to just use, e.g. the fact that white goods are thirsty, scored no credit.

It is advised that, for the future, candidates are clear on the explicit difference between supply and use; however, credit will always be given for answers that implicitly answer the question.

#### Question 5 (d)

This question proved to be fairly straightforward for most candidates, who were able to pick up at least 2 marks for recognising different methods of water management. The most commonly referred to types were water meters, dual flush toilets, water 'hippos' and water butts. Few candidates made the mistake of water management in an agricultural or industrial context. Some candidates did, however, just give a summary of water use or water wastage and therefore scored nothing. More able candidates were able to recognise how the methods managed water, so for example water meters enabling people to be aware of usage or cost, or dual flush toilets using appropriate amounts of water therefore reducing use. As this question was in the context of household most candidates were able to apply logic and score some credit.

(d) Outline how water is managed in households.

Firstly wester is managed in movemous by having a sport flush on the toliet and an ecomony setting on the washing machine, this will reduce the amount of water wed as only the water needed is well as only the water needed is water is managed in howeholds by having a water collects that rain water, which can be used for gardening. This is good because rain water is used and not tap rain water is used and not tap



This was fairly typical of candidates who scored full marks on the paper. There were two clearly identified methods, often separated by paragraphs and two clear reasons for management. The outline is evident in both paragraphs, for example short flush toilets reducing usage, and water collection (water butts) allowing for non-essential use. This candidate clearly identifies the method and the outline so is awarded a solid 4 marks.



An outline requires brief explanation. Therefore, in the case of water management, often marks will be given for a management method and another mark will be given for how this manages water. These points should have a link so that the development is clear. It is easier for candidates to learn two methods that they can apply in a 4 mark question.

### Question 5 (e)

This question was generally well understood by candidates. Many were familiar with types of appropriate technology and were able to describe how they supplied water and thereby could access the bottom of Level 2. There was some confusion at the lower end with candidates choosing water supply methods which were not 'appropriate technology' for LICs e.g. large-scale dam projects; however, as long as they were on water supply they still accessed Level 1 marks. Those that mentioned water use unfortunately did not score.

The main issue with candidates was the focus on how appropriate technology supplied water, as many instead mentioned the consequences of using it. Good answers gave specific detail on the methods, for example, materials, specification and how the water ended up in peoples' homes. Top answers were able to offer development or partial explanation to get into Level 3, although some candidates failed to reach the top of the level as they did not include reference to place examples or organisations.

\*(e) Using examples, explain how appropriate technology is used for water supply in small communities in Low Income Countries (LICs). (6) abe technologies used IQ \ \+ \+\rough \ \tops \ \OCOLOG\ i(\)
(Total for spelling, punctuation and grammar = 4 mar (Total for Ouestion 5 = 24 marks)



This is a candidate who scored 6 marks and had excellent detail on at least two methods of appropriate technology, one of which was well located. This candidate understands the specification of the hand-dug wells, which therefore adds more to their description of the method. They are also able to give details on how the method(s) supply water to local people and not just the benefits of using the method, which restricted other candidates. This candidate could easily have entered the higher paper with this level of detail. It is also well written and there is an attempt to use geographical terminology and punctuation throughout. Most of the spelling is to a high standard. Therefore this answer scored 3 for SPaG.



When the question asks for examples, try to give either statistical information about a method used in a particular place or give the exact location, not just 'Africa'. You can also get place information by using information about organisations (in this case NGOs) and when they helped set a project up.

### **Paper Summary**

It was pleasing to see that despite changes to the style of questions in some of the extended writing sections, there was no overall change to the performance of the paper.

There are, however, a few areas of focus that could help improve candidate performance in future series and they are therefore offered the following advice:

- Ensure that you understand the different commands, particularly the difference between 'outline', 'suggest' and 'explain'. Candidates seemed to cope well with description at Foundation Tier.
- On case study questions, support your points with specific locational detail. This cost some good answers a mark on Question 2(c) in particular.
- Ensure that you learn the terminology of the physical geography topics to allow you to fully understand different concepts and features in Section A.
- If using a resource as a guide, for example on an extended writing question e.g.
   Question 1(d), use it as a guide but try to include your own points to give range and depth in your answer.
- If asked to write about a point with reference to HIC or LIC ensure that the point is specific, perhaps related to a named place, so that you avoid generic answers.
- Have a look at the Sample Assessment materials for this specification that were released with the change to the content. This will help understand the types of questions we are able to ask on the specification.

Overall, on behalf of the examining team on 5GA2F, congratulations on your efforts on this paper.

## **Grade Boundaries**

Grade boundaries for this, and all other papers, can be found on the website on this link: <a href="http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx">http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx</a>





