

Examiners' Report
June 2014

International GCSE Geography 4GE01

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 www.edexcel.com or www.btec.co.uk.

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 www.edexcel.com/resultsplus. 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: www.pearson.com/uk.

June 2014

Publications Code UG038905

All the material in this publication is copyright
© Pearson Education Ltd 2014

Introduction

General Comments

This was the first of the latest generation of International GCSE papers and the first of the Certificate in Geography papers. The only significant departure from the previous generation of International GCSE papers in Geography was the greater emphasis on fieldwork which now has a section of its own on the paper. This section, C has four 25-mark questions each assessing the full investigation sequence. Candidates answer two of the four and in the main, had been very well prepared for this task. It does appear that not all candidates understood this restricted choice of question; a few answered either 7 and 8 or 9 and 10. The rubric required 7 or 8 and 9 or 10. This was the paper's only real rubric offence. There was the very occasional instance where a candidate attempted all or nearly all questions.

The candidature was of a similar size to that of 2013 but it was particularly encouraging to note the rise in both the percentage mean (approximately 2%) and in the proportion of candidates achieving grade A (approximately 3%). This can be largely attributed to the generally positive manner in which candidates responded to the new fieldwork questions and to the generally better use of case study material made by candidates in answering the later longer items in questions. It is pleasing that this concern in the 2013 report has been addressed effectively by centres. More specific detail related to the actual named example and relevant to the question set was a feature of this year's scripts. The greater number of Level 3 responses, especially on the 9-mark finale items and the existence of a significant number of very high-scoring scripts (i.e. 150 plus marks) can be attributed to the improved application of knowledge and understanding. Many of these responses were within the allotted answering space. There is little evidence that producing answers in excess of this adds a great deal to final scores. Clear and concise responses to answer the question set are to be encouraged.

An analysis of question choice reveals a similar pattern to that of previous years. Questions 1 (River environments) and 3 (Hazardous environments), and Questions 4 (Economic activity and energy) and 6 (Urban environments) were clearly the most popular options in Sections A and B respectively. Question 5 (Ecosystems and rural environments) was far less popular than Question 2 (Coastal environments). In the new Section C more candidates opted for rivers fieldwork (Question 7) than did for coastal fieldwork (Question 8) whereas Questions 9 (energy fieldwork) and 10 (urban fieldwork) were of very comparable popularity. The Global Issues section of the paper, D, again saw approximately half of the candidates choosing Question 11 (Fragile environments). Question 13 (Development and human welfare) was the least popular choice in this section.

Question 1 (a) (ii)

This was universally answered correctly with candidates successfully recognising the lake, the clouds, ground water and the sea on Figure 1 as stores of water.

(ii) Name **one** store of water shown in Figure 1.

(1)

A lake



ResultsPlus
Examiner Comments

Lake was probably the most popular of the four stores shown on Figure 1. The term, store was not used on the diagram or as a key item so it appears that candidates were familiar with the idea of the hydrological cycle as a system of transfers between stores.

(ii) Name **one** store of water shown in Figure 1.

(1)

~~XXXXXXXXXX~~ The Sea.



ResultsPlus
Examiner Comments

The sea is a store of water though not the candidate's main choice, possibly because of its positioning on Figure 1 though a little surprising given that most candidates identified the transfer as run-off and the run-off is shown as into the sea. Again, good recall of the concepts of store and transfer from prior learning.

Question 1 (a) (iii)

This item provided a degree of both access and discrimination. Most candidates managed to gain the initial mark for the basic idea of a repetitive 'roundabout.' Better answers included ideas of global circulation and a closed system. Second marks achieved consistently.

(iii) Suggest why the term **cycle** is used to describe the processes shown in Figure 1.

(2)

The term cycle is used because the processes happen again and again and don't stop.



ResultsPlus
Examiner Comments

This is a basic 1 mark answer typical of many candidates. The answer lacks precision, development and any hydrological terminology.

(iii) Suggest why the term **cycle** is used to describe the processes shown in Figure 1.

(2)

Since the water cycle is closed all the water is constantly moving and through transpiration, evaporation and precipitation but it never leaves ~~the~~ the earth's stores and so it recycles it in a cycle.



ResultsPlus
Examiner Comments

This answer with its reference to "closed" and "never leaving the ... stores" and "constantly moving" is an advance on the other example offered, meets mark scheme criteria and is worthy of maximum marks. The naming of hydrological processes adds specificity to the answer.



ResultsPlus
Examiner Tip

Refer to command word of "suggest" and maximum credit available always seek to develop answers adding relevant detail and points of explanation where possible!

Question 1 (b) (i)

This was surprisingly badly answered for a term stated in the specification. Too many candidates confused the term with long profile or hydrograph. Some referred broadly to channel variables and some made no mention of discharge. Fieldwork questions apart, each (b)(i) item was a definition. This was one of the lowest scoring definitions questions on the paper.

(b) (i) What is a **river regime**?

(2)

A river regime is the area of land through which a river flows. It is the length of the river from its upper stage through the middle stage to the older stage from its source to the mouth.



ResultsPlus Examiner Comments

This is an example of a not untypical response where the candidate was not really familiar with the term, regime. There is not even a mention of discharge let alone its 'normal' pattern of variation through the year. The candidate has completely missed the point so zero was the only mark possible.



ResultsPlus Examiner Tip

Knowledge of geographical terms is an essential part of this specification as is the ability to demonstrate understanding of such terms.

(b) (i) What is a **river regime**?

(2)

It's the amount of discharge and its change or fluctuation by seasons ~~etc~~ on yearly basis. This happens because of the water changes throughout the year.



ResultsPlus Examiner Comments

Whilst not a classic textbook definition of river regime, it closely approaches one and includes the key ingredients of discharge fluctuations, annual and seasons. As such, it warrants both marks.



ResultsPlus Examiner Tip

Named terms in the specification will be assessed and it may be good practice to commit textbook definitions of them to memory in order to ensure that there is sufficient clarity for the award of the second mark.

Question 1 (b) (ii)

This appears to be a linked question where marks depend upon some credit being gained in (b)(i). Some candidates managed to gain marks for generic responses on contributory factors e.g. precipitation, vegetation cover, urbanisation, geology ... and some development marks without offering a clear-cut definition of regime in (b)(i). Those who did offer maximum mark definitions in (b)(i) tended to have little difficulty in gaining full or nearly full marks in (b)(ii). A valid factor stated was worth 1 mark and with its development into how discharge/the regime could be affected resulted in the award of a second mark.

(ii) Outline **two** factors that affect a river regime.

(4)

1 The amount of heavy rainfall that the river receives.

2 The lag-time can also affect a river's regime as the shorter the lag-time, the quicker the water is being delivered back to the river.



ResultsPlus
Examiner Comments

The only creditworthiness in this response is the identification of one valid factor i.e. rainfall. Unfortunately, it is not developed so as to make the link to discharge. The candidate's second response about lag time clearly comes from their study of hydrographs. It is good geography but not strictly relevant to a very focussed question.



ResultsPlus
Examiner Tip

Know your terms and understand 1+1 marking rule i.e. 1 for stating and 1 for developing.

(ii) Outline **two** factors that affect a river regime.

(4)

1. Rainfall - In some seasons it's more raining than in others which would fill the river up more and give it bigger discharge.

2. Temperature - when it's too hot the snow/ice would melt and turn into water as well as the evaporation getting a lot stronger and emptying a river more. When it's cold, however, river could have a relatively low discharge.



ResultsPlus Examiner Comments

This response received maximum marks because both factors, though both climatic are valid. Both are then developed warranting the award of second marks in both cases. In fact, temperature is developed in two ways - snow melt and evaporation. The latter is linked to discharge. There is certainly sufficient outlining of the process for the award of the both development marks.



ResultsPlus Examiner Tip

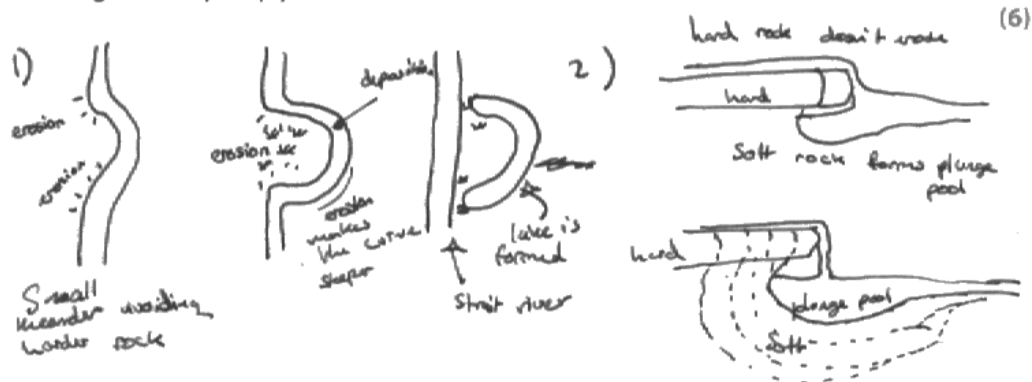
Develop your factors so that the 'how affected' in the question is addressed.

Question 1 (c)

The specification refers to watershed and channel network among others as features of a drainage basin. Some candidates took this interpretation of the question and provided accounts of basic features, especially watersheds, tributaries, source and mouth. The physical features of a drainage basin are also a required case study in which candidates are likely to study relevant landform development as well as basic features such as channel networks. Consequently, some candidates took this interpretation and went on to produce some excellent accounts of such landforms as waterfalls, V-shaped valleys and meanders/ox-bow lakes. The latter approach did seem to prove more profitable in terms of marks, perhaps because of the very nature of each of the two types of feature. Nevertheless, the item generally scored well with some candidates offering one feature from each type e.g. watershed and waterfall. Many candidates gained full marks.

(c) Explain **two** physical features of a drainage basin.

Diagrams may help your answer.



1 A meander oxbow lake is formed in a drainage basin because of a meander becoming too curved and cutting itself off. An oxbow lake is formed because of the erosion on the sides of a meander as time progresses slowly with deposition on the inner side and erosion on the outer. This slowly brings the start and the finish of a meander closer together. Soon the middle area becomes a marshy area due to the proximity of the start and finish of the meander. Once the oxbow lake is formed the small lake is left with a straight river running next to it.

2 A waterfall is formed when a layer of hard rock meets a layer of soft rock. Because of the differing hardnesses of rock water starts to erode the soft rock slowly forming a plunge pool. As the soft rock becomes more and more eroded the hard rock is undercut this means that slowly the water fall moves back and the plunge pool deepens. As it moves back this forms a gorge which is left behind by a waterfall.



There were a considerable number of responses which followed these lines. The candidate has adopted the second approach to answering outlined in the general introduction above. They identify two landforms - meander/ox-bow and waterfall and in each case, provide a thorough explanation in both text and diagrammatically of their formation. The sequenced diagrams for both features certainly add to the quality of the answer. The answer is within the allotted space and clearly of 3+3 marks. There is process in the answer and the "explain" command has clearly been met.

(c) Explain **two** physical features of a drainage basin.

Diagrams may help your answer.



1. The watershed is the boundary between neighbouring drainage basins which separates them and shows their floodplain area as well as the land drained by the rivers.

2. The channel network is the pattern of streams and tributaries within a drainage basin. It shows the land covered by the drainage basin and also where tributaries meet the main river.



ResultsPlus
Examiner Comments

This is an example of an answer where the candidate adopted the first interpretation of drainage basin features and went for watershed and channel network as per the specification. Their response merely describes in brief terms the feature and they never get into explanation e.g. how it works; why it develops ... The mark awarded is not entirely the result of their interpretation of the question; it is possible to develop their start into explanation. Unfortunately, the diagrams offer little to the answer.



ResultsPlus
Examiner Tip

Know the meaning of and follow the command word. Consider carefully the choice of feature so that the command word can be met.

Question 1 (d)

Candidates on the whole did well on this question with most being able to offer the causes of river pollution. The better answers included a range of explained causes that included supporting factual information, often in some detail and with some place-specificity but from various places. It was pleasing to read that many realised that location was key, both of the river itself and of how far the river site was from its source. Many candidates responded to the prompt to "use examples- including fieldwork" by detailing their fieldwork methodology rather than their findings to discuss the reasons for varying water quality. Most responses were of a generic nature and very few had a case study to offer. Responses became vaguer down the mark range.

(d) Discuss the reasons for variations in the quality of river water.

Reference to examples, including fieldwork, may help your answer.

(9)

The quality of river water varies significantly. In ~~Northern~~ China, less than 30% of ~~groundwater~~ drainage basins are considered clean. The ~~best~~ worst water with the poorest quality water are located in the North and South. ~~Only Central China~~ this is where large urban areas are located.

~~Poor river quality~~ Water quality is worse in near urban areas. This is because there are many sources of physical, chemical and biological pollutants. Road run-off carries litter and dirt residue into rivers, significantly reducing water quality. Factories deposit chemical pollutants such as heavy metals and detergents into rivers. Sewage treatment plants dump organic pollutants into rivers, which ~~in some~~ encourages eutrophication. River quality worsens with industrialisation. However, the ~~farther~~ river water becomes cleaner as you move further from urban areas. ~~It~~.

Certain rocks may improve river water quality, as they contain ~~many~~ different mineral ions needed for aquatic plant growth. The highest quality water is usually found at high altitudes or in glacial springs, where very few organisms ~~can~~ contaminate the water.

(Total for Question 1 = 25 marks)



ResultsPlus Examiner Comments

This was considered to be a mid-range Level 3 response. A range of salient facts and features are presented which meets the "discuss" command word. The principal reason for low water quality offered is urbanisation and its contributory mechanisms are reasonably well explained. The response has sufficient reference to location e.g. urban southern China, high altitudes ... though there is no specificity or a named example of a river which may have helped it reach the top of Level 3 (although specific examples are not a requirement to do so). The candidate has a sound grasp of the reasons for varying water quality and the sources of river pollution as per the specification and is deserving of a Level 3 mark.



ResultsPlus Examiner Tip

A concluding sentence along the lines of the very apt opening sentence may have rounded the answer off a little better. This is sound quality GCSE work - the candidate knows the reasons.

(d) Discuss the reasons for variations in the quality of river water.

Reference to examples, including fieldwork, may help your answer.

(9)

In lower courses of a river the quality of the water is much worse. Further down it is more likely to have agrochemicals in it from surface runoff. Sewage and waste from cities may be found as well. Since the river is moving much faster it can carry a much bigger load so there will be a lot more sediment in the river. More chemicals get into the river via vehicles such as boats which may leave some engine oil in the water. Lower down the river there is a lot more waste from animals such as fish, there could be dead fish in the water.



ResultsPlus Examiner Comments

This is a good example of a Level 2 response to this item. They do little more than state a few basic reasons why lower course river water tends to be more polluted. There is little or no development of these reasons - agrochemicals, sewage, oil, and no examples or reference to location. References to fish and sediment not developed so no further marks.



ResultsPlus Examiner Tip

Develop your answers e.g. why do agrochemicals worsen water quality? develop the very valid surface run-off point!

Question 2 (a) (i)

The vast majority of candidates seemed to understand the meaning of southerly longshore drift and were able to identify supporting evidence from Figure 2 e.g. build-up on northern side of groynes; more sand deposited to south ... The item did challenge some and it was not the highest-scoring opening item on a question.

2 Coastal environments

(a) Study Figure 2 which shows a stretch of coastline in the UK.

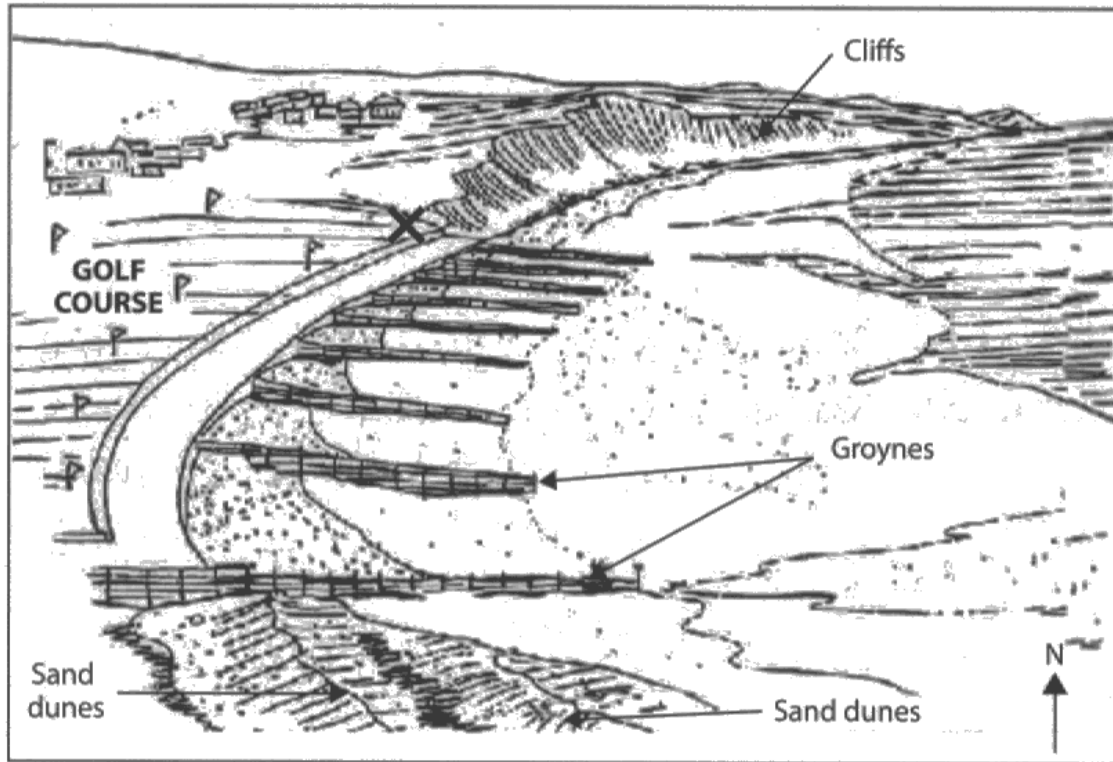


Figure 2

(i) What evidence is there that the direction of longshore drift is southwards?

There is a build of sediment on the ~~beside the~~⁽¹⁾
~~groynes~~ on the upward side of the groynes.



ResultsPlus
Examiner Comments

At this opening stage of question 2 the word "upward" is acceptable for northern side. The candidate clearly understands that sediment is being transferred from north to south. Their answer is correct.



ResultsPlus
Examiner Tip

Use geographical language wherever you can.

2 Coastal environments

(a) Study Figure 2 which shows a stretch of coastline in the UK.

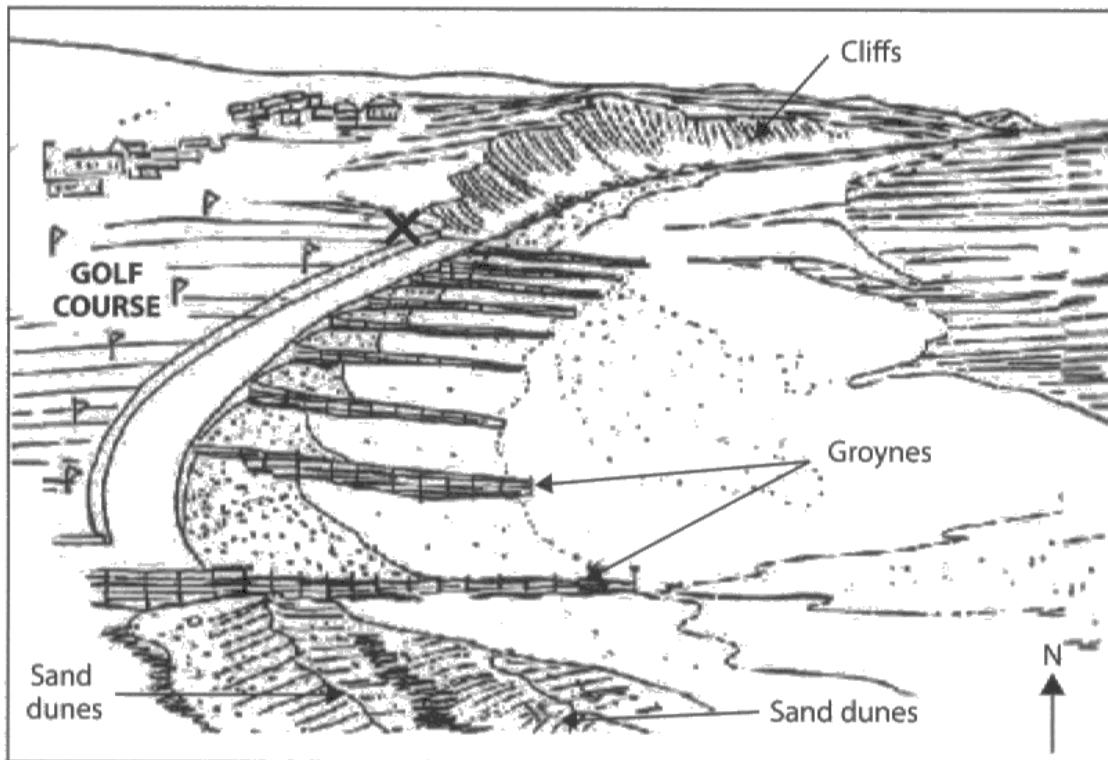


Figure 2

(i) What evidence is there that the direction of longshore drift is southwards?

(1)

*in south
sand dunes, and sand is more built up on north side of groyne*



ResultsPlus
Examiner Comments

This is a full answer for 1 mark. The candidate's second point is spot-on with regard to the mark scheme and worthy of the mark. The first point about the sand dunes is a little less clear-cut; it is arguable that dune formation has helped by LSD helping to provide a sand supply.



ResultsPlus
Examiner Tip

Clear, succinct answers like this are good practice.

Question 2 (a) (iii)

This item based on Figure 2 and about the idea of conflicts of interest along a stretch of coastline did provide the degree of access it should do at this early stage of the question but also a degree of discrimination. There were a range of 1 mark answers where either the conflicting groups or the nature of the conflict were not made clear, and a range of 2 mark answers where both aspects of the task were clear. Some did fail to comprehend the nature of coastal conflicts and concentrated their responses on supposed links between hotels and coastal erosion; many of these responses received no credit.

(iii) The owners of the golf course want to build a large hotel on the sea front at X.

Suggest **one** conflict that might arise from this proposal.

(2)

Environmentalists as they want to protect the environment by the sea and stop pollution into the wildlife + oceans.



ResultsPlus Examiner Comments

There is a valid point being made here but it is not expressed as a conflict of interest i.e. developers versus environmentalists because one believes in ... and the other ... The answer given is a merely a statement of environmentalist belief. One side of the conflict has been articulated in the question - owners of the golf club wish to build a large hotel, whereas environmentalists wish to protect the environment by stopping pollution. (1 mark) Question requires a more specific conflict link to the hotel development for 2 marks.



ResultsPlus Examiner Tip

Always try and answer the question set directly!
"Suggest one conflict" should have led to environmentalists object to because and this conflicts with

(iii) The owners of the golf course want to build a large hotel on the sea front at X.

Suggest **one** conflict that might arise from this proposal.

(2)

Locals living at the settlement northwest of the site may not want disturbance to their view or beachfront.



ResultsPlus
Examiner Comments

This not particularly well expressed answer was chosen as an example because of the way in which the candidate actually uses Figure 2 to compose their answer. The conflict is implicit i.e. local residents versus developers but the point of conflict well founded. Worthy of both marks.



ResultsPlus
Examiner Tip

Examiners like you to use the information they have provided.

Question 2 (b) (i)

For a named term in the specification this was generally answered very poorly. Some candidates seemed quite unfamiliar with the term and for many weathering and examples of it, especially freeze-thaw were as far as their answer went. Only the better answers included weathering and mass movement, and referred to 'normal' Earth's surface physical processes such as wind, run-off ...

(b) (i) What are **sub-aerial** processes?

(2)

Sub-aerial processes are processes such as weathering and erosion on top of a cliff.



ResultsPlus Examiner Comments

Reference to "weathering" and "top of cliff" provides a good starting point for the answer but does not constitute a full definition of the term. This is a good example of a 1 mark answer.



ResultsPlus Examiner Tip

(b)(i) items requires definitions of key terms. IT is important to be able to define and apply the knowledge of geographical terms.

(b) (i) What are **sub-aerial** processes?

are due to forces of nature concerning physical ^{processes not in} ~~and~~ (2) the sea,
Sub-aerial processes, including mass movement -
* breakage of cliffs due to gravity causing rock falls
and landslides - and weathering - destruction of
cliffs due to freeze-thaw, growth of vegetation roots and storms.



ResultsPlus Examiner Comments

This is quite a comprehensive response for a 2-mark question. There are the generics such as "physical processes not in the sea" as well as reference to weathering and mass movement and some of the processes they entail e.g. freeze-thaw; roots; gravity. There is a comfortable 2 marks here.



ResultsPlus Examiner Tip

This is a rather wordy definition but definitely worth full marks. Equally a short, concise response would gain full marks.

Question 2 (b) (ii)

Given that 80% of the A grade above candidates scored 0 or 1 on 2bi, it was not surprising to find many weaker response to this item asking for some explanation as to how Earth surface processes affect cliffs. The outline answer was clearly that they speed up retreat but not all candidates associated sub-aerial with cliff face. Many included marine processes and cliff foot erosion in their answer. Better answers did refer to exposure to wind and rain, weathering activity, gravity and mass movement, often slumping.

(ii) Outline **two** ways in which sub-aerial processes can affect the rate of cliff retreat.

(4)

1 Mass movement can cause the cliff to retreat more quickly as materials are carried down the cliff by gravity, causing slumping.

2 Torrential rain also battering the cliff can erode it at a faster rate.



ResultsPlus Examiner Comments

The first way offered by the candidate includes "mass movement," its effect on "rate of cliff retreat" and some process i.e. "gravity causing slumping." This is well worth 2 mark and its succinctness makes it a good example. The two way offered is less fullsome - a valid element is given as is "faster rate" but process is not here ! "Battering" is not enough for the second mark. The second way is a clear 1 mark only. The overall answer worth 3 marks.



ResultsPlus Examiner Tip

Outline means that some explanation needs to be attempted ! The second way offered needs developing in this direction.

(ii) Outline **two** ways in which sub-aerial processes can affect the rate of cliff retreat.

(4)

1. The force and power of sub-aerial processes can often have a huge impact on the amount of erosion acting upon the cliff-face. It can encourage the rate of erosion to quicken and so can affect the rate of cliff retreat.
2. They can also often work with other processes of erosion to have more of an impact on the rate at which the cliff face is retreating.



ResultsPlus
Examiner Comments

The candidate does not really answer the question; there are no ways offered e.g. no mention of weathering. There is, however, some attempt to answer the end part of the question i.e. how they "affect the rate of cliff retreat." Mention of "huge impact/encouraging/quicken" is worthy of some credit i.e. 1 mark. The second answer is at best, vague and repetitive. There are no further marks here.



ResultsPlus
Examiner Tip

Recommend knowing at least two sub-aerial processes e.g. physical weathering; slumping ... and some idea of how they work.

Question 2 (c)

This was generally well answered with the formation of headlands and bays being a popular choice. Some referred to concordant and discordant coastlines and most were able to apply aspects of geology, even if only hard and soft rock to their answers. There were answers where the focus was on general formation and there was too little reference to how geology affected the formation process.

(c) Explain how geology affects **two** different coastal landforms.

Diagrams may help your answer.



Landform 1 A Headland

This is made of strong + durable rock that takes time to be worn down and so it juts out of the coast as the softer rock is eroded around it. This occurs on discordant coastlines with hard rock eg. chalk, granite.

Landform 2 A Bay

This is created across discordant coastlines where soft rock is eroded quicker than its hard counter parts, this forms an inlet in the coastline called a bay. Sediments can build up in bays to form beaches, it's usually the soft rock that was eroded that makes up the beach in the bay. It can be made of clays, sandstone or soft crumbling soils.



ResultsPlus
Examiner Comments

There were a large number of answers along these lines. A diagram showing a discordant coastline of hard and soft bands of rock followed by a reasonable explanation of differing rock resistance to coastal erosion. The formation and resultant nature of the two distinct landforms are appropriate for the award of 3 + 3 marks.



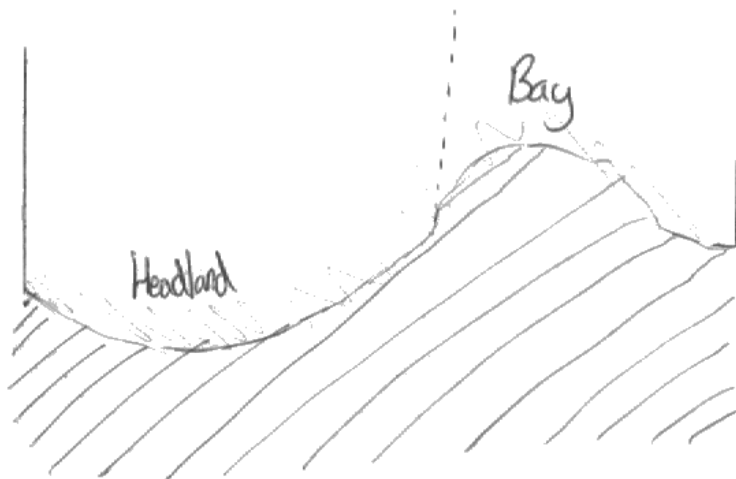
ResultsPlus
Examiner Tip

Put named hard and soft rock types on the diagram.

(c) Explain how geology affects **two** different coastal landforms.

Diagrams may help your answer.

(6)



Landform 1 Headland

Headlands are ~~made~~ made of hard rocks, like chalk, which protrude out from the coastline as the soft rock around them erodes quickly.

Landform 2 Bay

These are ~~made~~ made from soft rock (boulder clay) and erode quickly, pushing the coastline inwards.



ResultsPlus

Examiner Comments

This is a rather short and simple answer but sufficiently along the right lines to creep beyond basic marks for landform identification. The fundamental link between headland-hard rock-high resistance and bay-soft rock-quicker erosion is made in outline and is enough for 2 + 1 marks (not 2 + 2 for a mere mirror image !). To get greater reward process is needed.



ResultsPlus

Examiner Tip

Well developed annotated diagrams can achieve full-marks. Put some geology on the diagram and perhaps extend the coastline to the right.

Question 2 (d)

As one would hope that this end of the question, the item generated a variety of quality of response though overall it was pleasing to note the number of candidates who achieved at least Level 2. The majority of answers made clear references to case study material with a wide range of examples. The key words in the question were "how" and "threatened" so that the best answers addressed the processes by which development caused coastal ecosystem damage. Weaker answers merely stated that they are damaged by this or that activity or they looked at effects generally on ecosystems rather than threats.

(d) Discuss how coastal development can threaten coastal ecosystems.

Reference to examples, including fieldwork, may help your answer.

(9)

one example of how coastal development can threaten coastal ecosystems is in the great barrier reef in Australia. An increase in coastal development such as tourism and building hotels has increased using, therefore causing the extinction of two different types of coral. Further more the use of coastal development such as farms by the sea has effect water pH, here endangering the red snapper fish.

sand dunes are also under threat from coastal development due to an increase of leisure activities such as golf and riding where people trample on them, killing the vegetation making them unstable.

Coastal development at Hengistbury head area has caused salt marshes to decrease in biodiversity. This is due to an increase in beach houses along the spit in front of the salt marshes leading to an increasing in rubbish and trampling on vegetation.

During fieldwork investigation of environmental quality at Hengistbury head the areas where there were more commercial such as near the car park and restaurants were under threat as people have walked on cliff tops therefore killing vegetation and making them unstable.

(Total for Question 2 = 25 marks)

There was also litter which can pollute the water and change the pH affecting fish ecosystems.



ResultsPlus
Examiner Comments

This response has good range. The threats to three types of coastal ecosystem - coral reefs, sand dunes and salt marshes - are addressed and there is reference to fieldwork findings. The source of threats to these ecosystems is well done and there is much material on human-induced damage but the answer does leave scope for strengthening the "how" i.e. actual process (which is why this is not a top Level 3 response). The nature and demands of the question has been well understood by the candidate. The question asks for "ecosystems" and this approach is more apt than the case study response on one type of ecosystem say, St. Lucian coral reefs.



ResultsPlus
Examiner Tip

Check whether the key words are in the singular or the plural

(d) Discuss how coastal development can threaten coastal ecosystems.

Reference to examples, including fieldwork, may help your answer.

(9)

Coastal Development can threaten coastal ecosystems in many different ways. For example, in Hengistbury Head, Dorset, there has been a lot of coastal development like beach huts and cafes, due to the picturesque location. However, due to this development a lot more people use the beach, hiking up cliffs, and destroying the cliff's natural habitat, also causing a cliff retreat because of the damage caused by hikers. 35% less sea birds have nested on the cliff since the beach huts opened, and 79% of the areas local rare frog, the Natterjack, was wiped out due to unobservant hikers in the marshes. Trees were also cut down to build footpaths on top of the cliff, loosening the soil, and leading to a series of landslides, killing various animals in the process. Hitters left on the beach also kills seabirds who get caught in it.

(Total for Question 2 = 25 marks)



ResultsPlus Examiner Comments

This response has an air of generality about it even though it is referenced to a location, presumably the site of fieldwork. There is adequate mention of human impacts and of damage to the natural world but it tends to be descriptive, rather superficial and pays little attention to the nature of coastal developments that lead to these impacts. Which ecosystem is being referred to?



ResultsPlus Examiner Tip

Reference to a specific named ecosystem as per the specification e.g. sand dunes would have aided the answer. The question refers to "ecosystems" - reference to more than one would have helped.

Question 3 (a) (ii)

The vast majority of candidates answered correctly as 'plates' or 'tectonic plates.' Those offering plate margin or some other derivation of plate received no credit.

(ii) What term is given to the giant slabs of crust that make up the Earth's surface?

(1)

plates



ResultsPlus
Examiner Comments

Simple 'plate(s)' suffices without the addition of tectonic. 1 mark awarded



ResultsPlus
Examiner Tip

The ability to define Geographical terminology and apply the related understanding will be assessed in different parts of the examination paper.

(ii) What term is given to the giant slabs of crust that make up the Earth's surface?

(1)

Tectonic plates



ResultsPlus
Examiner Comments

This answer gives the full term for 1 mark.



ResultsPlus
Examiner Tip

Know your terms! The geographical language in the specification will be tested.

Question 3 (a) (iii)

This Figure 3-based item tended to be done well. Most candidates managed to gain at least 1 mark for extracting and presenting relevant information from the map. There was generally implicit understanding that plate boundaries with their earthquakes and volcanoes are hazardous places. Many candidates provided supporting material e.g. nature of boundary movement; complex plate boundary location ... and received the second mark.

(iii) Outline why Japan is a hazardous place.

Use information from Figure 3 in your answer.

(2)

Japan is a hazardous place because it is right on the plate boundary. These plates go into each other this is called collision. The plates will slide then a build up of pressure will force the plates to slide into each other causing an earthquake. Japan is very close to 4 plates ~~at most~~ Okhotsk, Philippine, Eurasian and the Pacific plates.



ResultsPlus
Examiner Comments

This is a full answer for 2 marks. The candidate points out the multiple boundaries and outlines how earthquakes happen at destructive boundaries. There is a comfortable 2 marks here. Figure 3 has well read and referred to.



ResultsPlus
Examiner Tip

Perhaps it is better to put direct information from the Figure first i.e. the 4 plates and their boundaries before introducing your own knowledge and understanding. It answers the question better and has a certain logic about it.

(iii) Outline why Japan is a hazardous place.

Use information from Figure 3 in your answer.

(2)

Japan located on the constructive plate. Eurasian and Pacific plate

are always ~~to~~ crush together. This create a big vibration of the plate.

The plate boundary move towards.



ResultsPlus

Examiner Comments

A rather confused and ill-expressed answer which upon scrutiny does have some geographical merit. There are plate names offered and the idea of plate movement and vibration is introduced. These are worth the initial 1 mark. Beyond that there is no credit. "Constructive" and "crush" seem to contradict; the plate boundaries shown are not constructive!



ResultsPlus

Examiner Tip

Always try to make full use of the information given! There is relevant information on Figure 3 which has not been extracted by the candidate e.g. meeting place of a number of plates...

Question 3 (b) (i)

Most candidates acquired the first of two marks, often for addressing the "disaster" aspect of the definition. Candidates were able to write out loss of life, injury, property damage, economic costs ... Some were also able to make clear that "natural" referred to causation and the distinction between natural environment processes and human causation; this often was the source of the second mark where candidates obtained maximum marks.

(b) (i) What is a **natural disaster**? (2)

A natural disaster is an event that has occurred because of environmental processes and has caused devastating effects such as the destruction to settlements. Loss of life is also an impact of natural disasters.



ResultsPlus Examiner Comments

The candidate indicates that the cause is environmental (taken as natural!) and that disaster refers to destructive impacts on people and settlement. Both words in the term are addressed appropriately and the response worthy of both marks.



ResultsPlus Examiner Tip

Where the term to be defined is double-barreled e.g. natural disaster, rural accessibility ... you do right to ensure that both words are dealt with.

(b) (i) What is a **natural disaster**? (2)

an event that harms both people and their property, and is caused naturally.



ResultsPlus Examiner Comments

This is a clear 1-mark definition. The idea of "disaster" has been covered but there is nothing about "natural" other than the word being re-stated.



ResultsPlus Examiner Tip

Please address the meaning of both words in definitions of double-barreled terms e.g. natural disaster, rural accessibility ...!

Question 3 (b) (ii)

This was a very well answered item. Candidates as ever were very familiar with a range of reasons why, despite the risks, people tend to live in hazardous environments, often volcanic. The classic benefits afforded by volcanic areas frequently appeared but many offered more personal motives, including inertia.

(ii) Give **two** reasons why people continue to live in areas at risk from hazard events.

(4)

1 The benefits of living there such as a high wage may be ~~the~~ good enough to outweigh the risks

2 The risk itself such as an earthquake may be so non-frequent that people to stay informed about it and ~~live~~ live there regardless



ResultsPlus Examiner Comments

There are not two full/well-developed reasons give here so maximum marks was not considered appropriate. The second reason (i.e. ignore the risk because infrequent but stay informed) was considered sufficient for 2 marks. The first reason was considered less clear and valid i.e. what "benefits?" "high wages" vague and from where? Need to expand on 'outweighing the risks'. The award was 1+2=3 marks.



ResultsPlus Examiner Tip

Try to be as explicit as possible! The first reason could easily have turned from a 1-marker into a 2-marker if the candidate had talked about where the increased income came from ie. visitors guides.

(ii) Give **two** reasons why people continue to live in areas at risk from hazard events.

(4)

1. People continue to live in these areas because they have their jobs there. People make money through using the volcano as a tourist attraction (e.g. shops; tours to the crater).
2. Also, the ~~the~~ using a volcano again, the land is very fertile around the volcano, and so can be used for agricultural production / collecting minerals.



ResultsPlus Examiner Comments

This is a fairly typical full mark answer where the candidate offers and sufficiently develops two standard reasons why people live near volcanoes. There are better 4-mark answers but the candidate does sufficient by way of development to warrant both second marks. 2+2 = 4 marks.



ResultsPlus Examiner Tip

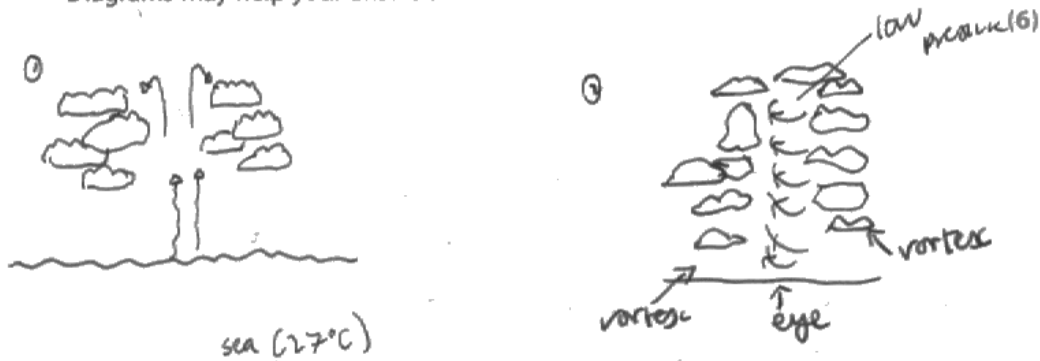
Make sure you develop your reasons into full, explicit ones. The second reason is only just sufficient for 2 marks e.g. fertile volcanic soils (rich in minerals) raise crop yields is fuller.

Question 3 (c)

This was an item that had very mixed responses. Most candidates were able to identify two characteristics of a tropical storm but the request to explain certainly differentiated candidates. Some gave detailed accounts of how storms form and/or why the identified characteristic is a feature. Other answers were either descriptive or showed a lack of understanding. Diagrams were often drawn and also varied from the poor to a correctly annotated tropical storm cross-section.

(c) Explain **two** characteristics of a tropical storm.

Diagrams may help your answer.



- 1 Tropical storms cause high amounts of heavy rainfall because the hot sea water (27°C+) ~~either~~ heats the air causing it to rise which causes an area of low pressure, this ~~area~~ sucks up water. The water vapour cools and condenses outwards forming rain-heavy clouds. This rainfall is also very damaging in areas because a tropical storm usually moves very slowly over land, due to the fact that it is fuelled by the energy of the warm waters it forms upon. As the storm moves slowly, huge amounts of rainfall form in ^{concentrated} ~~around~~ areas.
- 2 Tropical storms also ~~not~~ usually have the characteristic of having very strong winds. This is because, ~~the~~ when the air cools and forms outwards the air ~~is~~ drawn around an area of low pressure. They circulate and rotate very fast ~~and~~ strong, which can cause a lot of damage to an area. A tropical storm rotates anti-clockwise in the Northern Hemisphere and clockwise in the southern. The external winds then blow them in land, ~~it~~ usually westwards due ^{to} the earth's rotation. This also cause the wind to circulate very strongly and at high speeds.



ResultsPlus
Examiner Comments

The text shows in-depth understanding of the fairly complex processes involved in storm formation. The diagrams add little to the quality of the answer. Storm characteristics are clearly recognised and explained. This is a 3+3=6 mark answer.

(c) Explain **two** characteristics of a tropical storm.

Diagrams may help your answer.

(6)

1. Very strong winds, class 5 tropical storms have a wind speed of at least 195 mph. These strong winds have heavy bad effects on LIC's because of ~~185~~ poor infrastructure. These winds can be measured and updated by national weather systems and broadcasted through radio or TV updating citizens involved on what is happening.
2. High amount of precipitation (mm). When tropical storms occur it is extremely likely that there is a lot of rainfall too. This is due to the high pressure and low pressure and the temperature of the place.



ResultsPlus
Examiner Comments

Two valid characteristics are identified - very strong winds and high precipitation which equates to 2 marks. Beyond that there are only a few references that constitute valid explanation e.g. 75 mph winds ... A second mark for characteristic 1 was awarded. The rest is either superfluous or wrong.

Question 3 (d)

Candidates tended to be very successful on this item; it was on average the highest scoring 9-mark finale item on the paper. Most candidates actually addressed the question set, frequently included case study material and were able to make clear a factor or two behind the differing impacts of hazard events in LICs and HICs. The better answers, many of whom received maximum marks explored the differences in prediction-preparation-response and linked these clearly to contrasting levels of economic development.

(d) Discuss why a country's level of economic development may affect the impact of a natural hazard event.

Reference to examples, including fieldwork, may help your answer.

(9)

A Country's level of economic development could affect the impact of a natural hazard event as HICs will be able to cope better than LICs.

In Typhoon Haiyan, Philippines, the cost of damage was \$10 million. It was a Category 5 storm which means it reached wind speeds of > 150 mph. Though around 300 people were killed. It affected Tacloban on Leyte (islands of the Philippines) the worst, with a storm surge of 5m.

In the USA, Hurricane Floyd, the cost of damage was \$2 million, around 17 people were killed. It was a Category 4 storm.

Though in the Haiyan the category was one in HIC, there is the money to have certain building codes, and with NASA and satellites there are warnings that can go out at least 36 hours in advance. This gives the community the chance to evacuate or take precautions with their homes. In LICs there is not the chance, not enough money or resources so they are unable to control the impacts.



ResultsPlus
Examiner Comments

This answer lacks specificity and focus. It tends to deal too much with describing hazard impact and pays too little attention to the link between economic development, a country's ability to cope with hazard events and hazard impact. There is some case study material but it is not entirely relevant or used well to answer the question set. The response was limited to a middle level mark because of the above shortcomings.



ResultsPlus
Examiner Tip

It is important to identify the key words in the question and ensure that they are the focus of the answer.

(d) Discuss why a country's level of economic development may affect the impact of a natural hazard event.

Reference to examples, including fieldwork, may help your answer.

(9)

A natural hazard will generally have a greater impact on a LIC than a HIC. Firstly, a HIC will be better able to predict a hazard, and warn people of it, than a LIC. This is because they are more likely to have better predicting equipment and broadcasting systems, and more people will have radios, televisions and the internet. As a result, people in HICs can be better prepared for a hazard than those in LICs. People are more likely to be educated as to what to do in the hazard event than in LICs. Buildings are likely to be better built + fortified in HICs - for example, more buildings will be built with re-enforcing steel bars in an earthquake-prone area of a HIC than in a LIC. There will be more funds + better transport in HICs for evacuation. For example, when Hurricane Mitch hit Central America in 1998, around 20,000 lives were lost. However, 4 million people were evacuated when Hurricane Floyd hit the USA (a HIC) in 1999, and the death toll was just over 70 people. Economic development also determines the aftermath of the hazard. A ~~HIC~~^{LIC} depends on international aid in the short-term, and economic recovery in the long-term will be slow. However, in HICs, things recover much more quickly. For example, after the 1995 Kobe earthquake in Japan, electricity was restored in 6 days, ^{and} people were moving into temporary accommodation shortly after the event.



ResultsPlus Examiner Comments

This is a good answer (top of Level 3) of which there were significant numbers. There is comparison between HICs and LICs in terms of hazard event impact and their respective capacity to predict-prepare-respond. Case study detail, storms and earthquakes is used to support the relationships.



ResultsPlus Examiner Tip

This is a good example of how to write a longer answer. Answer the question directly early on, deal with relationships and generalisations before using your case studies in support.

Question 4 (a) (ii)

Nearly all candidates found this item very straightforward given that they had correctly identified solar radiation in the previous item. Many appropriately referred to open space and exposure to sunlight.

(ii) Suggest **one** reason why this is a good location for producing electricity by this means.

(1)

It is open with no shading meaning it can get lots of sunlight.



ResultsPlus
Examiner Comments

This type of statement based on proper use of the photograph in Figure 4 was very typical and worthy of the mark.



ResultsPlus
Examiner Tip

Use the figures!

(ii) Suggest **one** reason why this is a good location for producing electricity by this means.

(1)

No obstructions to block sun light.



ResultsPlus
Examiner Comments

Another form of words to the previous example and again fine for 1 mark.



ResultsPlus
Examiner Tip

Questions based on the first early resources in each question were targeted at D/E level therefore being accessible to the majority, if not all, candidates.

Question 4 (a) (iii)

Generally well answered by the vast majority of candidates. Many defined renewable as their advantage and realised that such sources tend to initially be expensive or inefficient in the sense of energy produced. There were very many 2 mark responses.

(iii) Give **one** advantage and **one** disadvantage of using renewable sources of energy.

(2)

Advantage

They can be reused and are therefore more efficient for the environment as we will never run out.

Disadvantage

It takes a longer time to produce energy than unrenewable sources.



ResultsPlus
Examiner Comments

The candidate offers at least one valid advantage i.e. "reused"/ "never run out" for 1 mark. There is no need to ponder over the validity of "efficient for the environment." With regard to disadvantage, the idea of construction time is perhaps implicit and valid for that mark. 1+1= 2 marks.



ResultsPlus
Examiner Tip

Respond to the command word, 'explain' and the precise number/type of explanation required.

(iii) Give **one** advantage and **one** disadvantage of using renewable sources of energy.

(2)

Advantage

do not produce any pollutants or waste products

Disadvantage

expensive to set up



ResultsPlus
Examiner Comments

Two short and appropriate statements. Both valid and worth 1 mark each.



ResultsPlus
Examiner Tip

Short statements like these are fine for 1 mark.

Question 4 (b) (i)

This term/definition item did confuse some candidates. Most seemed to know the four sectors referred to in the specification and realised how their importance changed with economic development (item 4biii) but some failed in this item to identify them as employment sectors. Confusing statements about the economy rather than simple statements about different categories of job/work were too frequent.

(b) (i) What is meant by the term **economic sector**?

(2)

The type of employment people are in. Primary sector is agriculture and farmers, secondary sector is factory workers, tertiary sector is services and quaternary sector is computer-based work, research and science.



ResultsPlus
Examiner Comments

This is a good answer worthy of both marks. The candidate starts by referring to employment type for 1 mark and then goes on to give illustrated examples from the sector model for a second mark.



ResultsPlus
Examiner Tip

Learning and applying definitions are a key skill.

(b) (i) What is meant by the term **economic sector**?

(2)

A major division in a country's economy based on 3 or 4 sectors. Primary, secondary, tertiary and quaternary in HIC's.



ResultsPlus
Examiner Comments

This answer fails to get over the job classification idea that lies behind the different sectors; a division of the economy is not enough for a mark. 1 mark was given for naming of the sectors.



ResultsPlus
Examiner Tip

Be specific and clear. Avoid being vague.

Question 4 (b) (ii)

Most candidates were comfortable with the terms, tertiary and quaternary and were able to come up with at least one contributory factor to the growth of these activities, especially technology development and wealth. Adequately developing these factors into full and valid reasons tended to be the discriminator. Some scored modestly because they focused too much on the decline of primary and secondary activities rather than offering the positive reasons for the expansion of the service sector. However, generally the item was answered quite well.

(ii) Outline **two** factors responsible for the growth of tertiary and quaternary activities.

(4)

1 In HICs people are demanding more for goods and services hence services are provided and people are employed to provide this services eg Retailing businesses are increasing.

2 In the tertiary sector and quaternary sector workers get a high pay and therefore many people want to be employed in this sectors.



ResultsPlus
Examiner Comments

The first point raised by the candidate is a weak 2 marks i.e. more demand-service provision-retail employment missing the prosperity/enough goods already factor. The second point about high pay is dubious about the whole service sector; there are other valid benefits of service sector work. High pay may apply to say, quaternary. This second point was awarded 0 particularly if the first point is given 2 marks. Overall, the answer is worthy of 2 marks.



ResultsPlus
Examiner Tip

Be explicit and accurate ! Omissions (e.g. greater wealth in 1.) and loose language (e.g. clean, safe working environment rather than high pay in 2.) can be costly in terms of marks.

(ii) Outline **two** factors responsible for the growth of tertiary and quaternary activities.

(4)

1 Technological advances in computing and ~~phor~~ pharmaceuticals have allowed the quaternary sector to boom and become a multi billion dollar industry.

2 Higher education and literacy rates have allowed more people to enter the tertiary and quaternary ~~sections~~ sectors, as they are quite specialised and require expert knowledge.



ResultsPlus

Examiner Comments

This candidate offers two valid factors i.e. technology and learning and then extends their answer to indicate the actual role that each factor plays in the growth of these activities, including named examples. It is a clear 2+2 = 4 mark answer.



ResultsPlus

Examiner Tip

This is a good example of how to answer these 'give two ... for 4 mark' items. Identify the factor for 1 mark then develop it so as to make clear its role for the second mark.

Question 4 (b) (iii)

This was generally well answered with the majority of candidates showing sound understanding of the order of sectoral change as per the Clarke-Fisher model. There were a variety of approaches when it came to illustrating these sectoral changes, including a historical timeline-case study approach where dates were quoted for a named country (e.g. Wales, Malaysia) and a statistical approach where changing sectoral percentages were quoted. The better answers were very clear about the reasons that drove the sectoral changes. Weaker candidates focused on defining the sectors and how they changed over time, often told as a story. Some candidates actually drew the Clarke-Fisher model.

(iii) Explain how the relative importance of each of the economic sectors changes as countries develop.

Reference to named countries may help your answer.

(6)

During early development of a country the main sectors used were primary and secondary. In Malaysia in 1970 the primary sector was at 33% and the secondary sector was at over 50%. The workforce of the Malaysia became more educated and so the primary and secondary sectors dropped. primary sector fell to 16% and the secondary sector to 30%. The tertiary sector involving services increased to 46%, this is a post industrial revolution figure. pre industrial revolution the sectors were focused on primary, during the revolution the sectors were mainly secondary. Towards the end of Malaysia's current development quaternary has begun to appear along with the arrival of ENCs.



ResultsPlus
Examiner Comments

There is valid material offered by the candidate but the account is partial. The full sequence starting with primary dominance is not given. They quote percentages but there is a general sketchiness to the answer which is not compatible with Level 3. The answer was put at the top of Level 2 (4 marks) because it offers the broad pattern of sectoral change.



ResultsPlus
Examiner Tip

Address the command word - description can contextualize and is given some reward but explanation - partial for Level 2, but appropriate explanation is required for Level 3.

(iii) Explain how the relative importance of each of the economic sectors changes as countries develop.

Reference to named countries may help your answer.

(6)

As a country develops the importance of economic sectors change, ~~the~~ as the country moves along the development pathway the sectors change. ~~For~~ When a country is at the beginning of its development pathway (pre-industrial) the primary sector is the most important and provides the highest proportion of GDP. For example Ethiopia is in its pre-industrial phase as 75% of people live in rural areas and take part in primary activities, mainly farming. As a country develops further and moves into the 'industrial phase' the importance of the primary sector rapidly declines and the secondary sector becomes more prominent. For example in 1750 when the UK began its industrial phase the percentage of people working in primary fell from 74% to 12% between 1750-1900. The tertiary sector is emerging as the secondary sector rarely provides employment for over 2/3s of the population. An example of a country in the industrial phase where the secondary sector is of the most significant is China. After this a country moves into its post-industrial phase where the secondary sector declines and the tertiary sector rapidly emerges. For example the UK is in its post-industrial phase where tertiary is the most important stage with quaternary appearing. 85% of people work in tertiary as of 2012 and only 2% in primary.



ResultsPlus

Examiner Comments

This is a full answer that goes straight to the top of Level 3 (6 marks). The candidate makes a good start by focussing from the outset on the wording of the question. It highlights the link between a country's progression through the various economic stages and what happens to sectoral employment. Primarily though, it explains why the sectors change.



ResultsPlus

Examiner Tip

Using appropriate examples and detailed factual information reinforces understanding of process and pattern

Question 4 (c)

This is a case study item as per the specification. Some candidates offered good case study detail e.g. South Wales, East London, Consett. These were suitable examples that had experienced de-industrialisation and so allowed the candidates to write about its causes and consequences as the question intended. These candidates scored well as their answers dealt with why the area needed to be redeveloped. Those who wrote about the regeneration activities scored less well on the grounds that that was not the question. Other weaker answers were either generic with no place information or looked at why developments are taking place in LICs (e.g. shanty towns), ignoring the description, de-industrialised.

(c) Discuss why one named de-industrialised area has become a focus for redevelopment.

(9)

Name of area: South Wales

South Wales used to be a centre point of industrialisation and mining; however, due to the ~~loss~~^{exhaustion} of raw materials, competition over seas meaning it is cheaper to import than extract the raw materials and the increased transport costs, it de-industrialised.

This de-industrialisation resulted in many factors which saw it become a focus for redevelopment. The environmental quality of the area fell, unemployment was high and there was also a high rate of depopulation. It was suffering economically; the lack of investment and employment led to a lack of quality social services such as housing, and facilities.

In order to combat the struggling situation the government invested £400 million in the Job Wales programme which encouraged business to locate in South Wales to provide jobs for many. ~~of~~^{over} 50,000 jobs were created, and businesses such as Ford Motors and Sony opened large HQs in South Wales. This area was also designated a 'redevelopment valley area', in which the government is restoring the environmental quality, putting large retail parks and large manufacturing plants there. This has led to a large ~~decrease~~ decrease in unemployment (decrease of 12%) and has made Cardiff ~~the~~ one of the 5 top destinations in the UK. ~~The construction~~ The money invested in ~~the~~ redeveloping and re-imagining the area resulted in an increase in tertiary activity and ultimately economic development in the area.

6



ResultsPlus
Examiner Comments

This is a well explained case study of the decline of heavy industry in South Wales and covers causes and especially, consequences e.g. unemployment. It explains why it has become an appropriate place for re-imaging and regeneration as well as offering some detailed knowledge and some detailed knowledge of the region with reference to improvements being undertaken. This is Level 3; 9 marks awarded.



ResultsPlus
Examiner Tip

Important to determine/identify what needs to be discussed in such questions

(c) Discuss why one named de-industrialised area has become a focus for redevelopment.

(9)

Name of area: ~~Shan Wangs~~ Stratford

Stratford has become an area of focus for redevelopment due to the increase in poverty and deprivation. Stratford is the home of the 2012 olympics. It used to be a de-industrialised area.

The development has opened up 2,000 new apartment blocks, 15,000 new job opportunities, 1 school and 1 college. It has also opened up shopping facilities such as Westfields and a community.

Before stratford was a deprived area with 4,000 homes with little space and no shopping or leisure facilities. It was the focus for redevelopment because it is on the edge of a city so has good communication links to the CBD. It also has room for expansion.

They aimed to provide 4,000 homes yet only provided 2,000. ~~They~~ The school they have opened is being closed due to not enough funds. And Westfield shopping centre only opened 5 weeks ago due to having to improve transport links.



ResultsPlus
Examiner Comments

This is a satisfactory answer but lacks the depth and correct focus to go beyond Level 2. It makes a few relevant points e.g. poverty, suitable location... which receive credit but too much of the answer is about the redevelopments themselves not why they took place. The spatial reference is East London but the case study knowledge is fairly superficial. This is a typical Level 2 response (5 marks).



ResultsPlus
Examiner Tip

Use case study knowledge to answer the question set rather than merely regurgitate the case study material that can be recalled.

Question 5 (a) (ii)

This was very well answered. Very few candidates failed to recognise that crops were being irrigated. Those that did often confused the irrigation with crop spraying.

(ii) What is happening at X in Figure 5 to increase agricultural production? (1)

water is being sprayed onto the crops



ResultsPlus
Examiner Comments

This definition of irrigation is as acceptable as the term itself.



ResultsPlus
Examiner Tip

Generally better to know your terms but this longer answer was creditable because we did not specifically ask for a term.

(ii) What is happening at X in Figure 5 to increase agricultural production? (1)

Irrigation



ResultsPlus
Examiner Comments

The correct geographical term - 1 mark.



ResultsPlus
Examiner Tip

Knowing geographical language pays off!

Question 5 (a) (iii)

Most candidates were able to identify at least one relevant way. Acceptable responses range from a single word/phrase e.g. GM crops to a sentence.

(iii) Give **two** other ways of increasing agricultural production.

(2)

- 1 Using HYV seeds (High yielding variety) or use herbicides.
- 2 ~~Producing GM crops which are genetic~~
Add fertilisers.



ResultsPlus
Examiner Comments

All the ways (there are four!) stated are relevant and sufficiently clear for the award of a mark. Max. of 2 marks given.

(iii) Give **two** other ways of increasing agricultural production.

(2)

- 1 greenhouses - can regulate temperature to produce 2-3 times amount of products.
- 2 Intensive farming - growing crops on a small area of land with a high yield outcome.



ResultsPlus
Examiner Comments

The use of greenhouses is a relevant way or method so warrants a mark. Intensive farming was not considered to an approach (ie an approach employs methods) as opposed to a method itself. The mark scheme did not credit it. 1 mark awarded in total.



ResultsPlus
Examiner Tip

Be specific and direct as possible.

Question 5 (b) (i)

Few candidates gained full marks because accessibility was rarely seen as it should have been in terms of service provision. The question was looking for a response along the lines of whether rural dwellers have access to the type of services available in urban areas. There were plenty of 1 mark responses along the lines of remoteness/access to towns but services rarely got a mention.

(b) (i) What is meant by **rural accessibility**?

(2)

The ability to travel to the area from the urban environment.



ResultsPlus
Examiner Comments

This is not a good definition but the idea of "travel" and "urban environment" bring something to the notion of accessible and remote villages. 1 mark was awarded.

If the answer had been reversed e.g. travel from to urban (services) it would have been worth 2 marks.



ResultsPlus
Examiner Tip

Use the marks available as a prompt.

Question 5 (b) (ii)

There was clear grasp of the characteristics of rural environments and most candidates scored well on this item. The characteristics offered ranged from the traditional features such as lower population densities and farming to the more modern such as rural broadband developments allowing teleworking from home. The discrimination often took the form those offering list-style answers and those able to develop the characteristic.

(ii) Outline **two** characteristics of rural environments other than accessibility.

(4)

1 The population density is relatively low in rural environments.

2 Lots of green ~~space~~^{plants} and space in rural areas.



ResultsPlus Examiner Comments

The candidate offers two valid characteristics (2x1 mark) but there is no development to earn second marks.



ResultsPlus Examiner Tip

Give examples wherever you can. Remind the candidates of the requirements of the command word 'Outline' - detailed development of the characteristic or an attempt to explain why, likely to be partial.

(ii) Outline **two** characteristics of rural environments other than accessibility.

(4)

1 Population density is usually lower than in urban areas due to rural-urban migration to the city, leaving fewer workers for agriculture or services.

2 Farmland and green open spaces as the main economic sector is agriculture and so there are ~~many~~^{many} farmers and less air pollution.



ResultsPlus Examiner Comments

The two valid characteristics (2x1 marks) have been developed, hence, 2x2 marks. In each case, the candidate has tried to answer 'because' or 'so what' after stating the characteristic.



ResultsPlus Examiner Tip

Ensure characteristics are described not just stated on "outline" questions.

Question 5 (b) (iii)

Some candidates did confuse specific rural change with rural-urban fringe but many did have understanding of what has been happening in rural settlements, both remote and accessible ones. There were some good accounts of counterurbanisation and the new economic activities in accessible villages, sometimes named. The impacts of technology allowing people to live in the countryside and work from home or set up rural businesses using internet broadband communications were well explained by some. Equally, some candidates were well aware of the changes in farming that have led to depopulation and service reduction in remote villages. Some candidates did have grasp of case study level detail for named settlements but generally answers were more generic.

(iii) Explain the changes taking place in some HIC rural settlements.

Reference to examples may help your answer.

(6)

Many HIC rural settlements are becoming more accessible, main roads are being built making them easier to reach. Many farms are beginning to diversify, they may set up a farm shop or set up a bed and breakfast to bring in more income. Telecommunications are improving which is meaning telecottageing can take place. Telecottageing is when small businesses may renovate old barns and set up their businesses, it this can happen because mobile reception and broadband are reaching to more rural areas. People are taking holidays to rural areas, the tourism business is increasing. People are also becoming more aware of conserving rural areas and being aware of the environment. The populations of rural settlements are increasing in some places because people want a rural life instead of a city one.



ResultsPlus
Examiner Comments

This is a generic account of a series of changes occurring in accessible rural settlements in HICs i.e. transport, broadband, tourism, conservation, farm diversification ... It is accurate, wide-ranging and sufficiently explanatory to be a Level 3 response (6 marks).



ResultsPlus
Examiner Tip

Reference to examples (in the sense of named villages and specific changes) may help your answer.

- (iii) Explain the changes taking place in some HIC rural settlements.

Reference to examples may help your answer.

Counter-urbanisation is ^{happening} in many HICs. (6)
Creating commuter dormitories ~~which~~ and ~~other~~
pushing up prices of properties.
Many settlements have tourist attractions
and encourage many tourists sometimes
making them busy places.
Some settlements are being joined ^{to cities} up by
urban sprawl creating bigger towns and
cities.



ResultsPlus Examiner Comments

The last sentence is a rather edges of urban areas than pure rural, it's not contemporary but has happened. The first point about counterurbanisation and its two consequences is well made, albeit brief. The tourist is less so but nonetheless valid. It is a Level 2 response at 4 marks.



ResultsPlus Examiner Tip

There is scope for improving this without the addition of further activities or names e.g. explain terms: counterurbanisation and commuter dormitories.

Question 5 (c)

This tended to be the most poorly answered of the nine 9-mark finale items on the paper. Many answers were vague and few candidates reached Level 3. Candidates, on the whole, showed a reasonable understanding of the terms, biotic and abiotic and their elements but tended to struggle how the living were affected by the non-living- i.e. how they do or do not interact/influence one another, for the better or worse.

Temperate grasslands, especially the North American Prairies and tropical rainforests were the most popular choice of ecosystem, usually at biome level. Better answers often gave an overview of the components of the ecosystem and then referred to impacts and adaptation rather than true interrelatedness eg grass growth adapting to the Prairie climate; sunlight and rainfall affecting Amazonian trees. Very few candidates discussed decomposition, nutrient cycling or energy flows though some did unwisely venture into threats from human activity.

Temperate grassland but many insects = birds
- climate → rainfall → plants = ↓ animals
- cold winter →

However, human
interrupt

- Soil = many plants & trees → bison grazing animals
- grass, died → decompose → enrich the soil

(c) For a named ecosystem, discuss how its living (biotic) components are affected by non-living (abiotic) components.

(9)

Name of ecosystem: Temperate grassland

The temperate grassland is often ^{found} in the continental interiors.

It has a temperate climate with warm ^{summer} ~~winter~~ and cold winter. It has small amount of rainfall so the dominant vegetation is grasses and shrubs.

The non-living components play a significant part of the distribution of living components. Firstly, less rainfall and cold winter of the ecosystem

restricts the growth of big trees because they do not have enough supply

of water so the dominant vegetation is grass and small trees. Similarly,

limited plant growth results in limited numbers of animals because

of lack of food supply. However, the ecosystem has a great number of

insect population so many species of birds are found. Secondly, the ecosystem has

a very fertile soil called chernozems so that grass and food crops ^{that need less water} can

grow well. This causes the area often being grazed by bison or cows. Their manure

help to enrich the soil's fertility. However, not only abiotic components that have

affected the biotic components of the area. Human can have influence on them

as well. For example, in the Great Plains when European migrated into the area ^{in 1930s},

the balance of ecosystem is destroyed. Grass is ploughed out and ^{commercial} food crops

such as corns, maize, wheat are grown instead. All the bison that were grazed

by local people are hunted and the soil's fertility dramatically decreases. Shortly

the area loses its richness and is unable to grow any vegetation. This means not

only plants but animals are lost from the ecosystem.



ResultsPlus Examiner Comments

This is a mid-Level 3 response. It does have a sense of linkage throughout but lacks some detail in explanation to gain the final mark. Key components of the temperate grassland biome are there (e.g. grass, chernozems, bison, farmers) and there are some actual real relationships given with some development in support. It does answer the question.



ResultsPlus Examiner Tip

Precise, detailed explanation of relationships and, better still interactions, is good at Level 3.

(c) For a named ecosystem, discuss how its living (biotic) components are affected by non-living (abiotic) components.

(9)

Name of ecosystem: Temperate Grassland.

The living components of this ecosystem need non-living components as their sources.

The sources include; the sun, water, soil nutrients.

These are needed for growth of ~~primary~~ plants (producers)

which in this ecosystem is most predominantly,

grasses and shrubs. The producers provide food source and energy to the herbivores such as insects and the wombat which in turn provide food and energy to predators such as the laughing kookaburra and Jackals.

If the non-living (abiotic) components are lacking then the producers can't grow and therefore there is no food source for the herbivores and omnivores which then means there is no food for the carnivores.

Therefore if desertification takes place in a Temperate Grassland (e.g. Mid West USA) this can lead to huge loss of biodiversity due to loss of soil nutrients.



ResultsPlus
Examiner Comments

A good choice of ecosystem and a sound description of its biotic and abiotic components. However, there is very little about the links between these two sets of components which was the gist of the question. The reference to desertification has little relevance. It was just Level 2 on the grounds that the components are quite well done and there is a hint of linkage between them.



ResultsPlus
Examiner Tip

Focus on the demand of the question - Discuss how one affects another.

Question 6 (a) (i)

Most candidates were able to extract an acceptable feature of the modern housing from the background of the photograph.

6 Urban environments

(a) Study Figure 6 which shows a squatter settlement and nearby modern housing in Nairobi, Kenya.



Figure 6

(i) Identify **one** feature of the modern housing shown in Figure 6.

(1)

.....It is tall, with many storeys.....



ResultsPlus
Examiner Comments

This was a frequent response that was credited with the 1 mark.



ResultsPlus
Examiner Tip

Study the figures carefully.

6 Urban environments

(a) Study Figure 6 which shows a squatter settlement and nearby modern housing in Nairobi, Kenya.



Figure 6

(i) Identify **one** feature of the modern housing shown in Figure 6.

(1)

Appartment blocks



ResultsPlus
Examiner Comments

Another very frequent response giving the type of housing. 1 mark awarded.



ResultsPlus
Examiner Tip

Read the Figures carefully!

Question 6 (a) (ii)

Generally, very well answered item. Many candidates gained both marks for two actual observations with the remainder getting at least one correct characteristic.

(ii) Identify **two** characteristics of the squatter settlement shown in Figure 6. (2)

1. patched together roofs

2. all buildings extremely close together and cramped



ResultsPlus Examiner Comments

Two correct observations from the foreground of the photograph. 2 marks awarded.



ResultsPlus Examiner Tip

If the question asks for characteristics shown in Figure 6 then to gain reward it has to be identified from the Figure not a generic characteristic of that feature or form. Indicate/locate the characteristic you are identifying on the photograph.

(ii) Identify **two** characteristics of the squatter settlement shown in Figure 6. (2)

1. Improvised housing - cheap materials that are ~~quite~~ flimsy

2. Single floor - The building materials are not good enough to have multiple floors and so instead they are crammed close together.



ResultsPlus Examiner Comments

Two valid observations about this particular settlement as shown on the image. 2x1 mark.



ResultsPlus Examiner Tip

This was a skills item with the marks being for reading the image rather than for recalling the characteristics of shanty towns generally.

Question 6 (b) (i)

Responses varied as to what is meant by urbanisation. Some candidates offered the expected definition but too many either wrote vaguely about urban growth or gave a key cause of urbanisation i.e. rural-to-urban migration as the definition

(b) (i) What is meant by the term **urbanisation**?

(2)

The growth of cities and the increase of the number of people
to making rural to urban migration.



ResultsPlus
Examiner Comments

This is not explicit or precise enough for both marks. Urbanisation is about population increase and neither "growth" or "increased in-migration" guarantee that! This is 1 mark only.



ResultsPlus
Examiner Tip

Know your terms precisely. They are all stated in the specification.

Question 6 (b) (ii)

The majority of candidates demonstrated clear understanding of the factors affecting urbanisation though reference to "rate" e.g. increasing, decreasing ... was not always addressed. Answers mostly referred to rural-to-urban migration and birth rate increase and so related to increasing urbanisation. Few responses related to decreasing urbanisation e.g. rural development. There were many push-and-pull model answers with the factors frequently well developed. Generally, this item was well done.

(ii) Outline **two** factors that affect the rate of urbanisation. (4)

1 ~~major~~ push factors, poor pay in rural areas.

2 pull factors, better jobs in city.



ResultsPlus Examiner Comments

A push-and-pull model answer. An example is given of each but there is no development nor any indication as to how the rate of urbanisation might be affected. It is a 2 mark answer in total with 1 + 1 awarded.



ResultsPlus Examiner Tip

There are several indicators that this question requires two extended points- the command word is "outline", the lines are numbered and more than one line is provided for each prompt. Make sure candidates are aware of these cues so that they do not miss out on marks.

The 6/7 word answers here are clearly not enough to achieve full marks.

(ii) Outline **two** factors that affect the rate of urbanisation.

(4)

1. Natural growth: Birth and death rates across urban areas can increase or decrease the urban population. E.g. if health services are better in cities then death rate decrease so natural growth will increase.
2. Rural ↔ Urban migration. Promise of employment and better quality of life draws poor rural dwellers to cities. On the other hand, an ageing population could lead to more leaving cities in search of quiet lifestyle. Businesses like teleworking also contribute to Urban → Rural migration.



ResultsPlus
Examiner Comments

This is an excellent answer well worth 2 + 2 marks. There is evidence that the idea of rate has been picked up in the piece on natural growth. The candidate offers two well explained basic drivers in urbanisation.



ResultsPlus
Examiner Tip

Note the word, rate. Factors should be linked to it as in this candidate's part 1.

Question 6 (b) (iii)

Rural-urban fringe geography tends to be familiar to candidates. Most connected to the HIC demand though some unfortunately, referred to LIC cities such as Nairobi and Rio de Janeiro and their squatter settlements. The HIC city accounts, often of Southampton, Cambridge, Manchester and Brussels were generally good accounts, referring to the development of retail parks, science parks and housing on greenfield sites and with the reasons related to limited space towards the centre of cities and the greater accessibility of the rural-urban fringe. The better answers included named specific developments, good locational knowledge and strong explanation.

(iii) Explain the changes taking place on the edges of HIC cities.

Reference to examples may help your answer.

(6)

There are changes taking place on the edge of HIC cities due to dissatisfaction with the CBD and the inner city. People and business relocate to the edge as the CBD and inner city is expensive, congested and noisy. Pull factors encourages people and businesses to the edge of cities as land is cheaper, environmental quality is better and accessibility is easy. In London, an HIC city, retail parks, industrial estates, science parks and business parks have emerged in to edge as land is cheaper and better environment quality. Brunel science park has been built on the edge of London. This is because land is cheaper but it still has good access via the M4 to London where there are 3 universities. Bluewater Shopping park has also been built on the edge of London as there is more spacing for parking considering more people use cars. However as transport around it is good it encourages people from more than one urban area, and still London as there are good rail networks.



ResultsPlus
Examiner Comments

This is a Level 3 response. The candidate writes about aspects of CBD areas that put developers off, offers specific named out-of-town developments and some explanation of the reasons behind their development and location.

(iii) Explain the changes taking place on the edges of HIC cities.

Reference to examples may help your answer.

(6)

The edge of Manchester is becoming ~~more~~ filled with companies moving out to the edge ~~of~~ of cities because there is more space ~~at~~ and it is cheaper so therefore the workers have to move out of the ~~city~~ city ~~also~~ as well. This means more housing has~~t~~ to be ~~built~~ built to accommodate the workers.



ResultsPlus Examiner Comments

The candidate has a sketchy outline of the subject only. It is correct as far as it goes but it lacks substance. Developments and reasons need introducing. I'm afraid it doesn't get out of Level 1 (2 marks).



ResultsPlus Examiner Tip

Develop the points made; what sort of companies are attracted to HIC city edges? why is space and cost important; how far is communication important?

Question 6 (c)

Candidates generally showed a sound understanding of urban land use distribution. Many were able to present case studies of a named city e.g. Manchester, London, Zomba .. which clearly referenced the various zones of land use and reasoning behind the distribution and gained Levels 2 and 3 marks. Level 3 was awarded where candidates analysed and explained the pattern. HIC cities tended to be more frequent. Some answers were entirely generic and descriptive, often based on the Burgess model and lacking any place-specificity despite the declaration of a city name on the top line. Some other candidates discussed the distribution of socio-economic groups though not all relating this distribution to land use distribution.

(c) Discuss the distribution of different types of land use in **one** named city.

(9)

Name of city: Bristol

In Bristol, there are many types of land use. For example, in the central business district, such as Quakers Square and Abbot Circus, there are many high end shops in which ~~the~~ people can spend ~~the~~ money ~~at~~ on clothes and meals. As you move further away you have a more tertiary sector ~~at~~ for business where companies have rebranded older places for more modern ~~needs~~ needs such as electronics company companies and even banking zones. Leisure buildings also occur in this area, such as museums and entertainment centres. These all generate business ~~for~~ ^{from} families and people, mostly during holidays, but still bring in money. Outside of these parts are more residential sectors to the north. Here, lots of ~~high~~ cheaper, ~~and more~~ houses rather than expensive flats outside the city centre. Further away as well, business parks crop up where more natural environments draw in businesses that want nicer surroundings for their buildings.



ResultsPlus
Examiner Comments

A rather generalised account of land use distribution under the banner of Bristol. There was not enough place-specificity to constitute a case study or to reach Level 3. The land use pattern described is broad and superficial but does have some credence and accuracy as a general description of land use across a city. Level 2 (6 marks) award.



ResultsPlus
Examiner Tip

Detailed case studies are what are needed at this stage of a question.

(c) Discuss the distribution of different types of land use in **one** named city.

(9)

Name of city: Manchester, UK

The centre of Manchester is the CBD (central business district). This is where most employment is found and in places such as Spinningfields the area is very pleasant with much of it being used for businesses. The spending power of these businesses is the greatest in the whole city. Manchester follows the Burgess Concentric model and the further out you go from the CBD the more the office buildings and residential places are. When you go along a transect from the CBD to the ^{Wilmslow} Royal Wilmslow to see 4 sectors: the CBD, the inner city ring, the suburban ring and the urban fringe. ~~The inner city of Manchester~~ The CBD contains very little of residential use and is primarily for business. When you reach areas such as Rusholme or ~~Whitefield~~ you are in the inner city area. This area is used for business and much of it does contain businesses however the residential use increases. The inner city housing tends to be older and less developed. As you continue along your transect you reach the suburban ring. This area is mainly used for housing and residential use. This is an area such as Old Withington. Withington mainly consists of student housing and people must commute to the city daily. However, the housing in a sub-urban ring tends to be nicer and more modern than the houses in the inner city. *The inner city area contains things such as universities and hospitals e.g. Manchester University and Manchester Royal Infirmary. Schools are also located in inner-city areas. Finally you reach the urban fringe in areas such as Wilmslow. The houses in these areas tend to be the most modern out of all four of the sectors. Wilmslow is in the extreme south of the CBD and it has the best living conditions. The housing in the urban fringe tends to be larger with Manchester's urban fringe containing many parks and greenfield sites.

d.



ResultsPlus Examiner Comments

This is an excellent answer about the pattern of land use distribution across Manchester. There is reference to a theoretical model, to named city areas, to locational detail and to genuine reasons behind the distribution. It is highly thorough and analytical and a clear example of a Level 3 maximum response (9 marks).



ResultsPlus Examiner Tip

This is what case study-based responses should look/read like!

Question 7 (a) (ii-iii)

Candidates generally understood the demands of this aspect of fieldwork and gave clear responses to both items. However, those candidates who had done actual fieldwork did tend to distinguish themselves from those who had been limited to virtual fieldwork, especially in terms of method detail (7aii). Most were able to describe what the instrument was used for e.g. measuring depth and width but some did not know how it was used to collect this data. Those describing the method in a step by step way gained the higher marks. Item 7aiii generated a wide variety of responses with the usual emphasis on risk factors. Some did recognise the importance of data quality in site selection. Generally the responses were reasonably good but explanation/development of the factor to gain the second mark was sometimes lacking.

(ii) Describe how this piece of field equipment might be used in the collection of river channel data.

(3)

It is used to measure the river depth. Firstly we divide the river up into six equal sections. Then every one-sixth I would place the metre rule into the water until it hit the bed. Then I would use another metre rule and hold it parallel to that one submerged in water, to make sure that the ruler is ^{ready level} vertically above the river water surface. Then we take the readings. Repeat for all six sections and calculate average depth by dividing ^{six}.

(iii) Outline **two** factors that should be considered when choosing a suitable site to collect river channel data.

(4)

- 1 We should consider ~~what~~ whether the river is safe enough to conduct the investigation, as there may be chance of flood or dangerous animals in it that can harm our lives.
- 2 We need to make sure that the site is representative and that the investigation conducted on site is valid, as in the site is able to answer our hypothesis or claims. For example, it is pointless to conduct investigation in lower course if the hypothesis is about upper course.



ResultsPlus
Examiner Comments

Item ii - a good answer in which a methodical step-by-step approach has been adopted. The methodology is precise and explicit and uses good fieldwork practice.

Item iii - again, a good answer gaining maximum marks for two valid and well-developed factors, safety and representativeness.



ResultsPlus
Examiner Tip

Applied fieldwork knowledge is best when it's methodical and clearly developed.

(ii) Describe how this piece of field equipment might be used in the collection of river channel data.

(3)

A metre rule is used to measure cross sectional area (CSA). By placing ranging poles on either side of a channel and tying a tape measure firmly between the two, the depth of the river is measured a tenth of the way along the river ^{using the rule}. When average depth is multiplied by the length of the cross profile, the CSA is found.

(iii) Outline **two** factors that should be considered when choosing a suitable site to collect river channel data.

(4)

1. The legality of the site is important as many rivers run through private land and you may end up trespassing.

2. The safety of the site is important as a very fast flowing river and steep, slippery banks can result in injury, or falling into the river can induce hypothermia.



ResultsPlus Examiner Comments

Item ii - well explained fieldwork methodology. It is apparent that the candidate has done their fieldwork on rivers and is applying their experience directly here. Not enough about the metre ruler itself other than its use in conjunction with other kit for the award of more than 1 mark.

Item iii - maximum marks (2+2) for the appropriate elaboration of legality and safety as site selection factors.



ResultsPlus Examiner Tip

Do answer the question precisely as set; achievable marks in ii not gained because of this !

Question 7 (b) (i-iv)

These later stages of an investigation post-data collection were generally done well with some candidates scoring higher than elsewhere on the paper. The actual versus virtual fieldwork split in the candidates was apparent, especially in b(iv). It was apparent that a number of candidates had prepared diligently and were able to apply successfully their knowledge and understanding in this section of the examination paper.

In b(i) the graphs were for the most part accurate though some were challenged by the task of plotting two sets of data and a site letter. The better graphs were scattergraphs with sites marked on a best-fit line or combined bar and line graphs with sites on the Y axis and the two X axes labelled with the data. Some graphs were either overly complex graphs or plotted only one data set or showed careless or no axis labelling or lacked clarity of plotting. B(ii) was generally well understood by the candidates most of whom were able to offer some justification for their choice of diagram. Some answers were more along the lines of a description of how they constructed their diagram rather than a justification of diagram choice. The concept of a conclusion (eg in biii) was not familiar to all candidates.

Level 3 conclusions reveal a clear understanding of the data and and make specific reference to it in identifying trends, patterns, variations and inter-relationships. Some candidates merely described the results by reiterating the figures without coming to any distinct conclusions. However, what was encouraging was the way in which some candidates linked this data analysis to their hydrological knowledge and understanding of river long profiles and of fluvial terms and processes. Generic responses tended to dominate item iv. Many candidates referred to repetition, averaging and sampling and too few to evaluating the fieldwork method. More focus on data collection technique would have raised the marks where 2 or 3 out of 4 was very common.

(b) Study Figure 7b which shows some channel data for five sites (A to E) along a river.

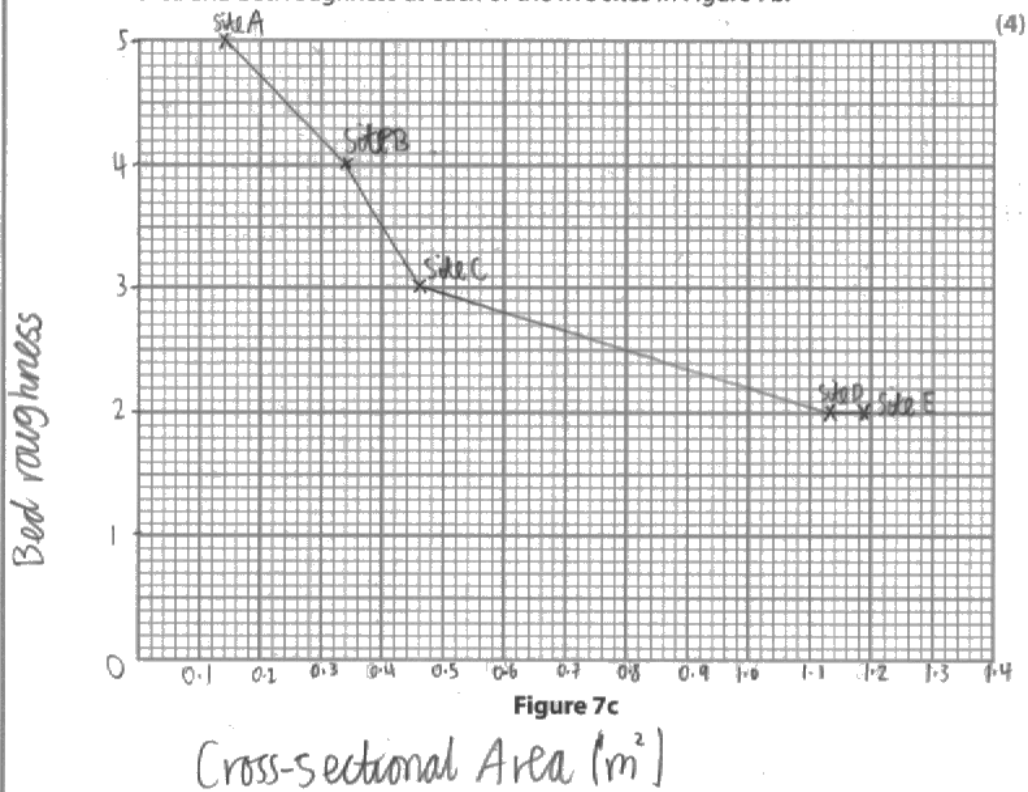
Site	Width (m)	Average depth (cm)	Cross-sectional Area (m ²)	Bed roughness *
A	1.3	11	0.14	5
B	1.7	20	0.34	4
C	2.9	14	0.46	3
D	5.4	22	1.19	2
E	3.9	29	1.13	2

* RIVER BED ROUGHNESS

- 1 = smooth, uniform bed, e.g. silt
- 2 = smooth fairly uniform bed, e.g. sand and shingle
- 3 = undulating bed, e.g. gravel, some weeds
- 4 = irregular bed, e.g. pebbles and small boulders, weeds
- 5 = very irregular bed, e.g. large boulders, many weeds

Figure 7b

(i) Draw a labelled graph below (Figure 7c) to present the data for cross-sectional area and bed roughness at each of the five sites in Figure 7b.



(ii) Justify your choice of data presentation technique in Figure 7c.

(3)
I chose to present the data as a line graph because it can be easily drawn either by hand or on a computer, & it visually shows the data, it is easy to compare the data using a line graph and the ~~graph~~ graph isn't time consuming to draw and it's easy to understand.

(iii) What conclusions about variations in the river channel can you reach from analysing the data in Figure 7b?

(6)
Site A may be ~~near~~^{at} the ~~lower~~^{source} course of the river as its average depth is the lowest, as well as its cross-sectional area. The bed roughness is the highest which means very little attrition and abrasion takes place ~~no~~ here. As you get further away from the source (Site B), the width increases, as does the average depth and cross-sectional area. The bed roughness has slowly decreased, ~~so~~ This means that abrasion is happening more often due to the increase in the water velocity.

(iv) Comment on how you might try to ensure that the river channel data collected is as accurate and reliable as possible.

(4)
To make the river channel data more reliable, I would repeat the fieldwork ~~to~~ three times and I would calculate the mean average for ~~ex~~ all of the ~~four~~ variables.



ResultsPlus

Examiner Comments

Item bi - Excellent graph well worth maximum marks. A line graph with the sites marked on the line is the best technique for this data. Axes and labelling spot-on.

Item bii - A clear and well-written range of standard reasons which match the characteristics of the graph drawn. Maximum marks.

Item biii - A series of simple observations on a variable by variable basis using the data in the table. No data was quoted nor were inter-variable relationships. The application of fluvial processes in an attempt to explain relationships was helpful. However, "conclusions" were not really Level 3 quality. Top Level 2 (4 marks) awarded.

Item biv - Awarded 2 marks as the answer amounted to one well-developed refinement i.e. repeat and average.



ResultsPlus

Examiner Tip

Conclusions need to be a synthesis of the whole data set and verified.

(b) Study Figure 7b which shows some channel data for five sites (A to E) along a river.

Site	Width (m)	Average depth (cm)	Cross-sectional Area (m ²)	Bed roughness *
A	1.3	11	0.14	5
B	1.7	20	0.34	4
C	2.9	14	0.46	3
D	5.4	22	1.19	2
E	3.9	29	1.13	2

* RIVER BED ROUGHNESS

1 = smooth, uniform bed, e.g. silt

2 = smooth fairly uniform bed, e.g. sand and shingle

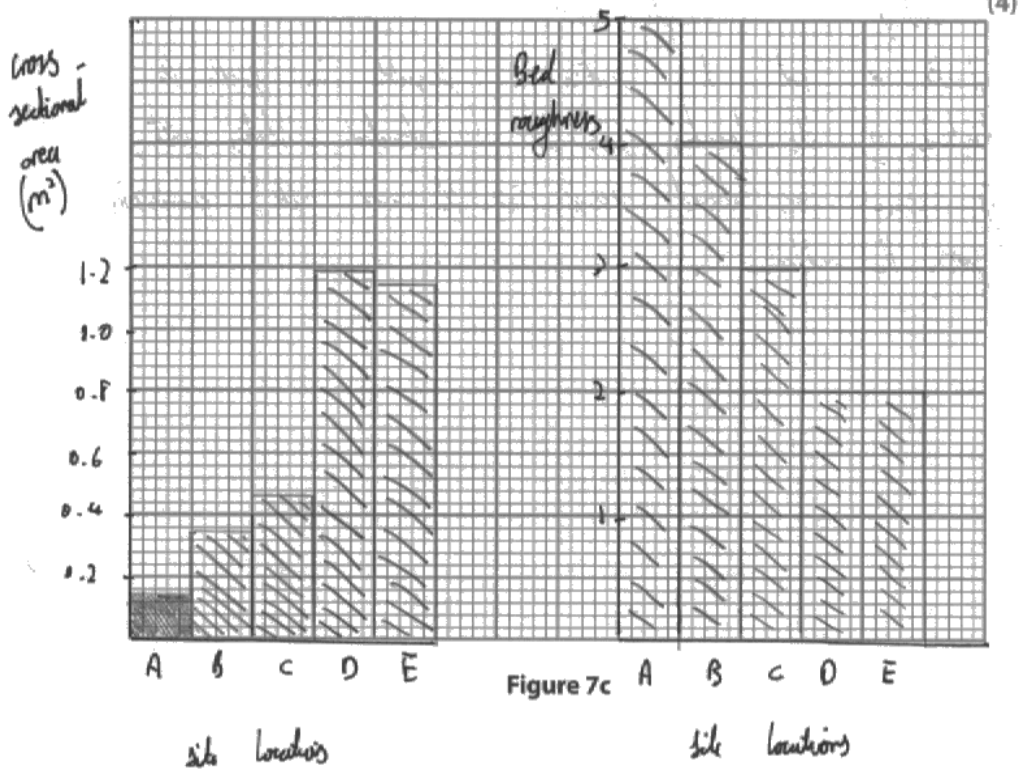
3 = undulating bed, e.g. gravel, some weeds

4 = irregular bed, e.g. pebbles and small boulders, weeds

5 = very irregular bed, e.g. large boulders, many weeds

Figure 7b

(i) Draw a labelled graph below (Figure 7c) to present the data for cross-sectional area and bed roughness at each of the five sites in Figure 7b.



(ii) Justify your choice of data presentation technique in Figure 7c.

(3)

The data is easily presentable.

The graph shows patterns and trends in the data. The graph is easily drawn quickly. The graph is easily put into a computer for duplication & printing.

(iii) What conclusions about variations in the river channel can you reach from analysing the data in Figure 7b?

Peer

(6)

The variation in river channel are significant or the are major changes in the river channel. However, there is a correlation in the relationship between the cross-sectional area and the bed roughness.

The cross-sectional area ranges from 0.14 m^2 to 1.13^2 with a range of 0.99 m^2 and a mean of 0.652 m^2 . The bed roughness ranges from 5 (very irregular, large boulders, rocky weeds) to 2 (fairly uniform bed of sand & silt). The correlation between being a large cross-sectional area and small calibre material and being a small cross-sectional area & large calibre material can be explained with the speed of the water flow. In a river with low cross-sectional area, the water has lots of friction on the river channel so there water flow which can move or transport large calibre material so the boulders stay there. However, a river channel with larger cross-sectional area has faster water flow which is able to move larger material. Also the give material sticks together which is found at site E.

(iv) Comment on how you might try to ensure that the river channel data collected is as accurate and reliable as possible.

(4)

Firstly you should repeat the experiment at several times of the year. Also to expand on each of the river channels to see if there is a correlation with other rivers or if it's just the one river channel which has the phenomenon. Also the recording of the cross-sectional area should be done as regularly as possible (perhaps) to get a better & more accurate value of the area. The sediment should be measured with the ruler.



ResultsPlus Examiner Comments

Item i - Maximum marks awarded because bar charts accurately drawn and they do work as a technique but a line graph with sites marked on line a better technique for showing correlation and trend.

Item ii - a number of basic and brief benefits offered by bar charts i.e. ease, patterns. Awarded maximum possible marks.

Item iii - there are genuine conclusions here with reference to correlation and the use of data. It is Level 3 in terms of quality but it is limited by the fact it relates only to the presented data not all the data in Figure 7b. Bottom of Level 3 (5 marks) awarded.

Item iv - this is quality response which refers to data, relationships between variables and attempts to explain why but again, relate only to bed roughness and cross-sectional are not the whole data set. 3 marks awarded.



ResultsPlus Examiner Tip

Conclusions need to relate to the whole data set in the table not just that graphed!

Question 8 (a) (ii-iii)

Candidates generally understood the demands of this aspect of fieldwork and gave clear responses to both items. However, those candidates who had actual fieldwork did tend to distinguish themselves from those who had been limited to virtual fieldwork, especially in terms of method detail (8a(ii)). Most were able to describe what the instrument was used for e.g. measuring length but some did not know how it was used to collect this data. The better responses to a(ii) often wrote about using the tape measure in conjunction with other equipment. Those describing the method in a step by step fashion gained the higher marks. Item a(iii) generated a wide variety of responses with the usual emphasis on risk factors. Some did recognise the importance of data quality in site selection. Generally the responses were reasonably good but explanation/development of the factor to gain the second mark was sometimes lacking.

(ii) Describe how this piece of field equipment might be used in the collection of beach data.

(3)

The tape measure has an important use in the collection of beach data. The tape measure can be used to measure the width of the beach which would allow for a beach profile to be sketched to show the gradient of the beach. The tape measure could also be used in systematic ~~measure~~ ^{sampling} in order to find the gradient of the beach. It could be set at a specific distance (5m) and then the gradient could be measured. This process could be repeated up the beach.

(iii) Outline two factors that should be considered when choosing a suitable site to collect beach data.

(4)

- 1 One factor that should be considered when choosing a suitable site to collect beach data would be health and safety. When ~~measuring~~ ^{collecting} beach data it is done near water where there is the possibility of someone drowning.
- 2 Another factor to consider would be the position of the low-tide marks. If you want to produce data which is representative then the beach profile needs to be measured at least three times. If the tide is coming in then the width of the beach will reduce because there is less distance to measure.



ResultsPlus
Examiner Comments

Item ii - a clear and accurate description of tape measure use during an actual beach profile investigation. All 3 marks gained as references to its use in beach width measurement and sampling procedures along the profile were realistic and fullsome.

Item iii - two relevant factors to site selection, health and safety and tide and time re enough data well outlined. Maximum marks (2+2).



ResultsPlus
Examiner Tip

Evidence of practical experience of using equipment in the field is definitely of benefit when answering these question parts

(ii) Describe how this piece of field equipment might be used in the collection of beach data.

(3)

The tape measure is used to measure the length of the beach itself. Once this has been determined the students can make intervals at which to collect data across, e.g. every metre.

(iii) Outline **two** factors that should be considered when choosing a suitable site to collect beach data.

(4)

1. The site has a large enough space on which to collect data i.e. you must be able to collect a reasonable amount of data in order to get reliable results that are comparable to other sites.
2. The site must have no external factors affecting the results i.e. there mustn't be an offshore breakwater reducing wave power when you're measuring beach erosion for the whole section of coast.



ResultsPlus Examiner Comments

Item ii - the candidate makes two statements both valid one about beach length and the other about interval identification. A little more development is needed for the third mark to be awarded.

Item iii - the candidate offers two factors - site size and external influences, perhaps not the best! Site size is developed into a data reliability argument and was awarded 2 marks. The external influences factor is less persuasive as a key consideration in site selection and was limited to 1 mark.



ResultsPlus Examiner Tip

Describe and develop fully, especially when asked to!

Question 8 (b) (i-iv)

These later stages of an investigation post-data collection were generally done well with some candidates scoring higher than elsewhere on the paper. The actual versus virtual fieldwork split in the candidates was apparent, especially in b(iv). It was apparent that a number of candidates had prepared diligently and were able to apply successfully their knowledge and understanding in this section of the examination paper.

In b(i) the graphs were generally accurate though some found the plotting of two data sets and a site letter challenging. Scattergraphs and line graphs were the popular choice with the former being common on the better answers. Too many failed to join the dots on otherwise accurately plotted graphs. B(ii) was generally well understood by the candidates most of whom were able to offer at least one simple reason for their choice of diagram. Full clear justifications were rarer. The concept of a conclusion was not familiar to all candidates. Level 3 conclusions reveal a clear understanding of the data and make explicit reference to and use of it to identify clear trends, patterns, variations and interrelationships with supporting data. Some candidates merely described the results by reiterating the figures without coming to any distinct conclusions. The fact that the trends in beach change with distance were not clear cut did challenge some candidates. Many responses portrayed a sense of unfamiliarity with the nature of beach profiles in general and this profile's location between cliff and sea level. Generic responses tended to dominate item iv. There were too few evaluations of fieldwork methodology and too many vague references to repeating procedures. Candidates scores respectably on this item though more emphasis on the accuracy and reliability of the data collection process would have improved scores further.

(b) Study Figure 8b which shows data collected at five sites (A to E) along a beach transect from the foot of the cliff to the sea.

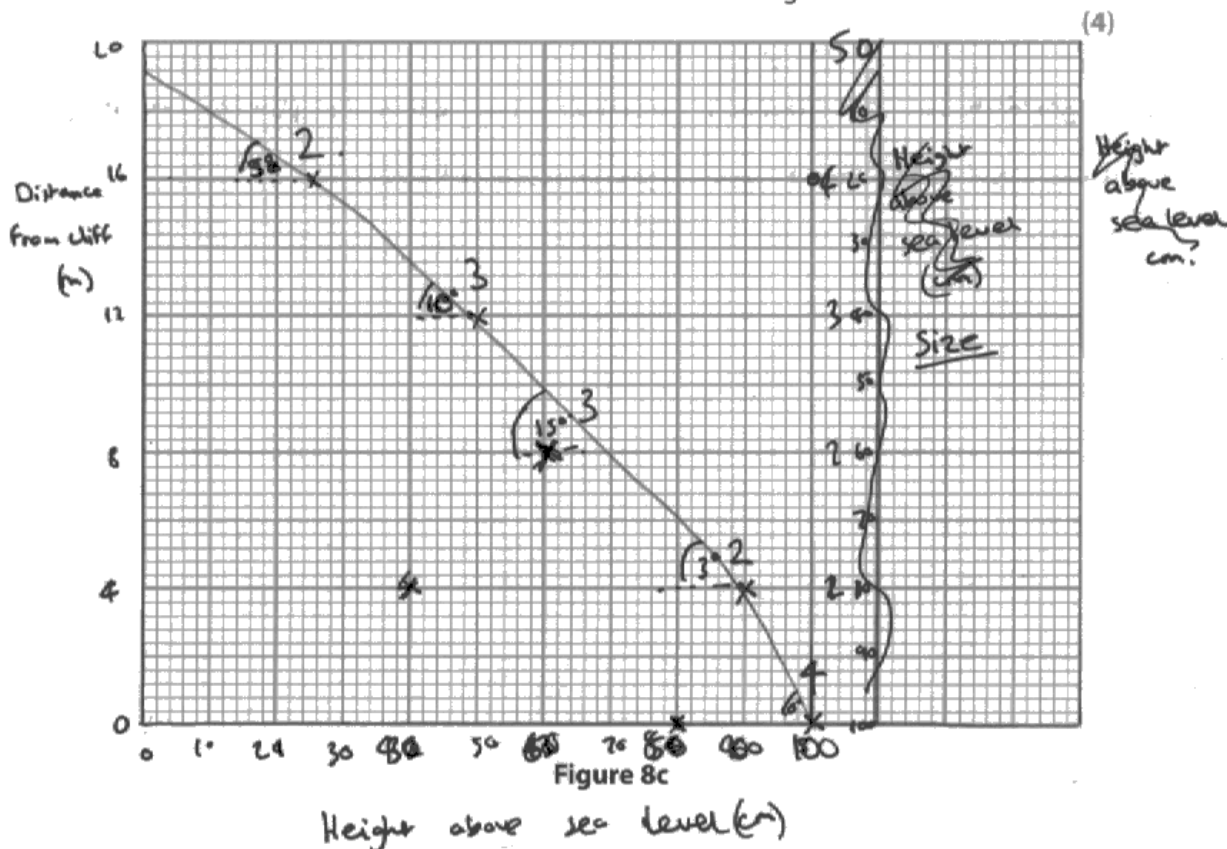
Site	Distance from cliff (m.)	Height above sea level (cm.)	Slope angle (degrees)	Sediment size *
A	0	100	-	4
B	4	90	3	2
C	8	60	15	3
D	12	50	10	3
E	16	25	5	2

* SEDIMENT SIZE

- 1 = fine sand
- 2 = granules (coarse sand/fine gravel)
- 3 = pebbles/gravel
- 4 = cobbles
- 5 = boulders

Figure 8b

(i) Draw a labelled graph below (Figure 8c) to present the data for sediment size and distance from the cliff at each of the five sites in Figure 8b.



(ii) Justify your choice of data presentation technique in Figure 8c.

(3)

To fit in all the data it had to be a graph because there were four pieces of data so I needed to include the height above as well as the distance from the cliff. The slope angle is shown by the gradient of slope on the line of the graph and the sediment size is shown next to the value of height and distance.

(iii) What conclusions about variations along the beach transect can you reach from analysing the data in Figure 8b?

(6)

Firstly, as the distance from the cliff increases, the height above sea level decreases showing that you are getting close to the sea, and the slope angle increases to start with at 3° at 4m from the cliff and 15° at 8m from the cliff but then it starts to decrease again as the distance from the cliff increases. At the start, the sediment size is the largest as it is 4, which is cobbles, as it is closest to the cliff, but the size of sediment decreases as it gets further away from the cliff. The quite similar values of sediment size from site B-E show that the type of sediment ~~is quite similar~~ ^{doesn't vary} from 4m from the cliff to 16m from the cliff, showing a slight consistency in the results.

(iv) Comment on how you might try to ensure that the beach data collected is as accurate and reliable as possible.

(4)

Rather than just measuring one piece of sediment at each site, the person should test 5 pieces of sediment at each site and take an average size. Also to measure the angle of the beach more accurately, get two people to stand at different sites on the beach with measuring poles and calculate the difference from the eye level of each person. Additionally, the experiment could be measured close to the sea therefore at further points from the cliff and at a lower height above sea level.



ResultsPlus Examiner Comments

Item i - The task has been mis-read e.g. why is height above sea level data being plotted. The result is a messy and confused diagram that does not really plot the data requested i.e. size and distance. Two basic marks for graph structure rather than content.

Item ii - Mis-reading of the task negatively impacted here too. 1 mark for an attempt to justify the choice of technique.

Item iii - A number of decent conclusions interrelating the four variables and supported by data. Good reading and analysis of Figure 8b, including the key. Level 3 (5 marks) awarded.

Item iv - A reasonably good response because it was evaluative re data collection e.g. more measurements and average. 3 marks awarded.



ResultsPlus Examiner Tip

Read the question set carefully i.e. bi.

(b) Study Figure 8b which shows data collected at five sites (A to E) along a beach transect from the foot of the cliff to the sea.

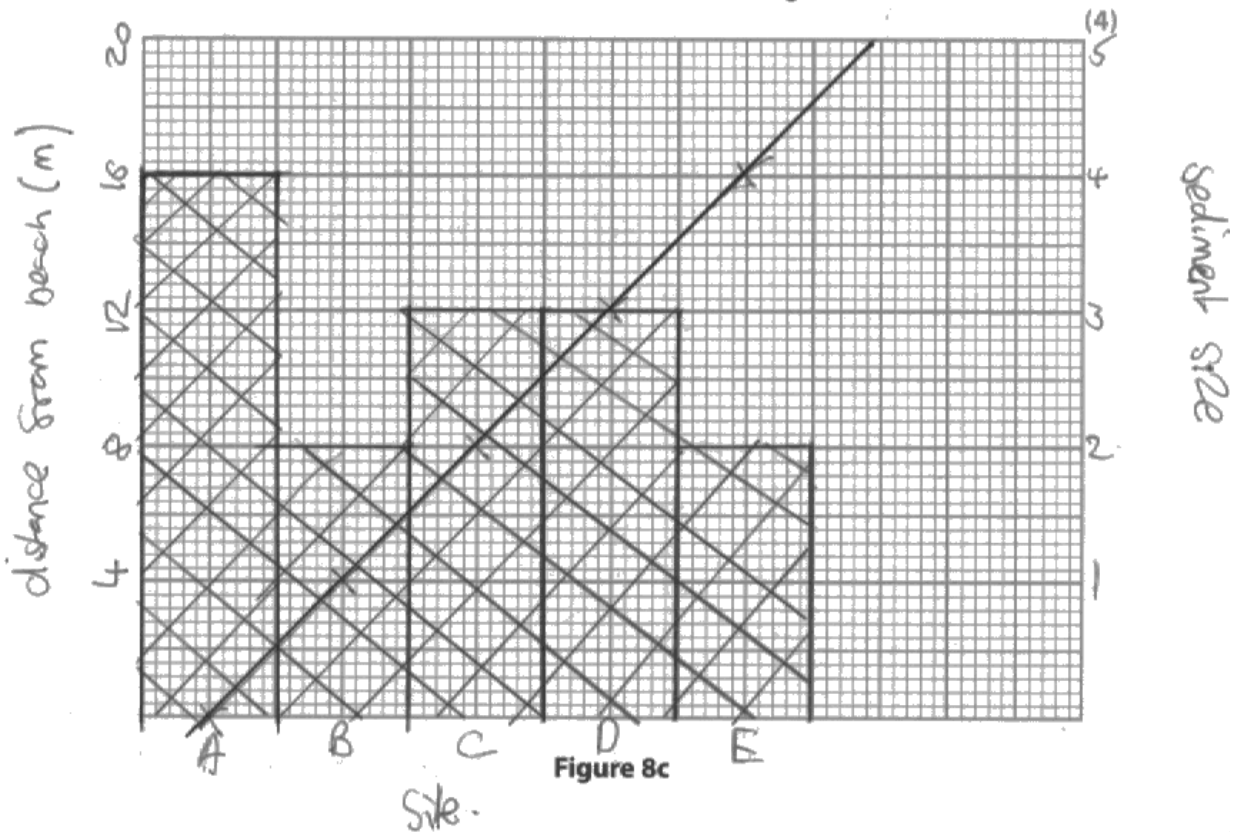
Site	Distance from cliff (m.)	Height above sea level (cm.)	Slope angle (degrees)	Sediment size *
A	0	100	-	4
B	4	90	3	2
C	8	60	15	3
D	12	50	10	3
E	16	25	5	2

* SEDIMENT SIZE

- 1 = fine sand
- 2 = granules (coarse sand/fine gravel)
- 3 = pebbles/gravel
- 4 = cobbles
- 5 = boulders

Figure 8b

(i) Draw a labelled graph below (Figure 8c) to present the data for sediment size and distance from the cliff at each of the five sites in Figure 8b.



(ii) Justify your choice of data presentation technique in Figure 8c.

(3)

It is a clear and simple way of displaying the data effectively and quickly. It also compares the data well.

(iii) What conclusions about variations along the beach transect can you reach from analysing the data in Figure 8b?

(6)

That the sediment that is closer to the cliff is generally larger and more rough and that the sediment close to the sea is mostly gravel and small. But no sediment is fine sand wherever it is. This shows that the sea makes the sediment more fine. erosion of sediment in the sea is due to attrition and abrasion and this breaks up the large rocks into smaller, more fine sand. But the roundness of sediment is not entirely reliable because it is of a personal opinion.

(iv) Comment on how you might try to ensure that the beach data collected is as accurate and reliable as possible.

(4)

with beach sediment, take a recording of 20 rocks/pebbles at each site and then average the result to find the most precise readings. Use specific equipment such as electronic laser measures and GPS height reader instead of tape measure and calipers as electronic equipment is generally more accurate. Repeat each measurement and check with 2 different people.



ResultsPlus Examiner Comments

Item i - Maximum marks awarded because it is well enough presented by a recognised technique. A line graph with the sites marked on the line would have worked better.

Item ii - A basic, vague and generic justification worthy of 1 mark.

Item iii - One sound conclusion based on just some of the data and linked to marine processes for purposes of explanation. Bottom of Level 2 (3 marks).

Item iv - Two valid suggestions i.e. repeat and average; better equipment to improve results, 2 marks awarded.



ResultsPlus Examiner Tip

Use all the data provided to reach and support conclusions

Question 9 (a) (i-iii)

These three opening tasks on the fieldwork sequence were generally well answered. Most managed to come up with a suitable aim in i though there were answers which were not clear enough to be an aim. It was evident which candidates had practiced devising questionnaires and evaluating their effectiveness. Better responses to ii accurately considered sampling methodology. Equally, risk assessment seemed to be a term not familiar to all. Responses to iii varied from the random and spurious to descriptions of genuine risk factors. Pleasingly, there were more responses along the lines of the latter in which full marks were gained.

9 Economic activity and energy fieldwork

(a) Study Figure 9a which shows a questionnaire designed for use in an investigation.

QUESTIONNAIRE			
1. What is your age?	Under-30	()	
	30 & over	()	
2. Do you believe that governments should encourage the use of renewable sources?	Yes	No	Undecided
	()	()	()
3. Should more or less use be made in the future of each of the following sources of energy?	More	Less	Undecided
Solar	()	()	()
Wind	()	()	()
Nuclear	()	()	()
Oil and Gas	()	()	()
Coal	()	()	()

Figure 9a

(i) Suggest **one** possible aim of this investigation.

(1)

To find out if ~~the~~ people over 30 have ~~the~~ the opposite view on energy source than people under 30 years of age

(ii) Outline how you would attempt to ensure that the data collected was as **accurate** as possible.

(3)

I would try to ask at least 100 people and try and make sure half were under 30 and half were over 30, to ~~be~~ ensure that the data collected was accurate as possible.

(iii) Describe **two** possible risk assessments that need to be made with this type of fieldwork.

(4)

1. If its in an congested urban environment then you need ~~to~~ to be careful of cars hitting you and getting run over.

2. Stranger danger, only ask the questionnaire to people in a group or couple and never ask it to people that are 'dodgy' looking or 'unsafe'.



ResultsPlus Examiner Comments

Item i - a reasonably valid aim worthy of a mark

Item ii - a basic response with some basic idea of sampling though unmentioned by name. Answer in need of development. There is no particular evidence that they have worked with questionnaires before.

Item iii - 3 of the 4 marks awarded because the two risks, traffic and strangers are not really assessed, are a little similar in kind and the answer does have a sense of over-simplicity and incredulity about it !



ResultsPlus Examiner Tip

The best responses do make it apparent that candidates had actually gone out into the field and practiced fieldwork techniques such as questionnaires for themselves.

QUESTIONNAIRE

1. What is your age? Under-30 ()
30 & over ()

2. Do you believe that governments should encourage the use of renewable sources?
Yes No Undecided
() () ()

3. Should more or less use be made in the future of each of the following sources of energy?

	More	Less	Undecided
Solar	()	()	()
Wind	()	()	()
Nuclear	()	()	()
Oil and Gas	()	()	()
Coal	()	()	()

Figure 9a

(i) Suggest **one** possible aim of this investigation.

(1)

Find out the public's opinion on Renewable energy sources
and what government should do about it

(ii) Outline how you would attempt to ensure that the data collected was as **accurate** as possible.

(3)

Firstly, I'd ask people who are evidently of different age to get different age group's opinion. Secondly, I'd ask people of different background as in ethnic diversity and different economical background. Lastly, I would pick a place with the most amount of diversity present to focus on different social groups. I would also do the investigation at different times of day.

(iii) Describe **two** possible risk assessments that need to be made with this type of fieldwork.

(4)

1. Make sure you are not rude to the ~~user~~ people undertaking this investigation ~~to~~ and neither don't get physically hurt by them
2. Make sure you're taking this investigation in a safe place and would accidentally be run over or hurt by the surroundings



ResultsPlus Examiner Comments

Item i - the aim is a little vague but suffices.

Item ii - a maximum mark answer. It has details re actual field procedure and range with both people and place mentioned. The concept of sampling is evident though not named as such.

Item iii - two acceptable risks are given but the actual risk assessment is wanting. The answer amounts more to a listing of two risk factors, hence 2 marks awarded (1+1).



ResultsPlus Examiner Tip

Practice on these sorts of questions, in this case risk assessment is helpful.

Question 9 (b) (i-iv)

These four post-data collection tasks were overall done well. The graphing exercise was straightforward given the limited data involved and many candidates gained maximum marks. Most drew a bar chart. It is important that candidates read the question carefully; some lost marks or time by plotting the wrong data, sometimes too much data. Item (ii) was generally well understood as it also appeared in Questions 7 or 8 and was well answered. There were the candidates who mis-understood the demand and described how they constructed the graph. The conclusions task was reasonably well done. There were the responses to (iii) that merely described the results on the graph or reiterated figures from the table and received lower level marks. However, there were many responses which included good conclusions based on the whole data set and showing an ability to analyse and then draw conclusions from that analysis. Item (iv) on additional types of information with the frequently ignored command word, comment was not particularly well answered. Too few appreciated the link to secondary sources though some did refer to internet searches and offer several extra questionnaire questions on the theme of sustainability.

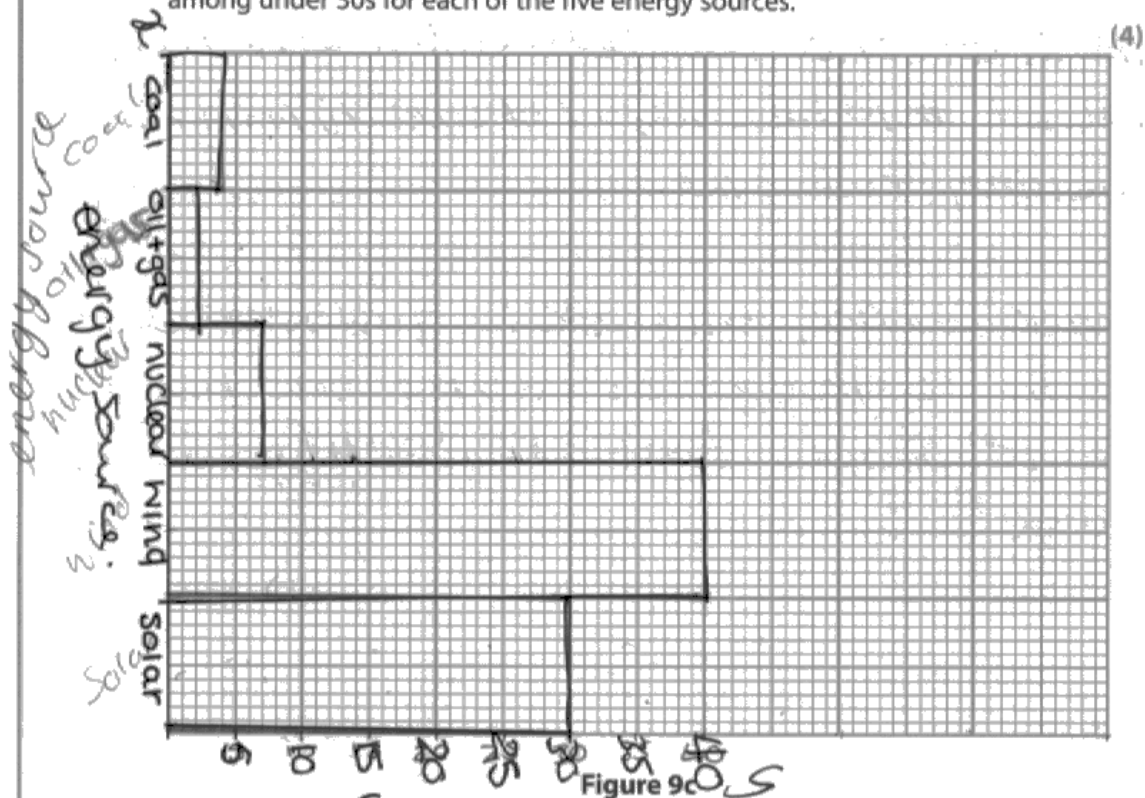
(b) Study Figure 9b which shows the responses given by 100 people to the questionnaire in Figure 9a.

Future use of energy sources

Energy source	Solar		Wind		Nuclear		Oil & gas		Coal	
	Under 30	30 & over	Under 30	30 & over	Under 30	30 & over	Under 30	30 & over	Under 30	30 & over
Use more	30	38	40	12	7	30	2	6	4	10
Use less	3	4	2	18	17	9	30	19	20	27
Undecided	10	15	20	8	20	17	30	13	27	12

Figure 9b

(i) Draw a labelled graph below (Figure 9c) to present the "Use more" totals among under 30s for each of the five energy sources.



use more under 30 year olds.

~~use more~~
number of Under
30 year olds

(ii) Justify your choice of data presentation technique in Figure 9c.

(3)

I used a bar chart because it clearly shows how ~~many~~ many under 30 year olds want ~~more wind power~~ different energy sources used more. It is easy to read.

(iii) What conclusions about the future use of energy sources can be reached from analysing the questionnaire responses in Figure 9b?

(6)

From analysing the questionnaire result, I can make the conclusion that wind is the most wanted energy source for the future and that it is most popular overall. While nuclear energy is the second most wanted for the future from 30+ but only 7, 30- want it. Solar is also the most wanted for future from the 30+ and many 30- want it also. Many people want coal, oil and gas to be used more. This all could be because these people see the affects ~~of~~ of global warming and ~~pollution~~ green house gases from oil + gas and coal but see ~~to~~ the future for renewable energy and see the positive and negative effects of Nuclear energy.

(iv) Comment on other information you might need in an investigation on the future use of energy sources.

(4)

The questionnaire could of opened other future energy sources, like wood burning and ~~hydrological energy~~ wave energy. Also the questionnaire could ~~shout~~ of asked why people want to / don't want to see certain energy uses in the future.



ResultsPlus Examiner Comments

Item i - a clear and accurate bar chart warranting the maximum marks it got in terms of the mark scheme but a rather strange orientation adopted.

Item ii - 1 mark awarded for a basic point around clarity and readability.

Item iii - a Level 2 response with some decent descriptions of the data supported by actual data which approximate to broad conclusions. Interesting were the attempts to explain these results.

Item iv - 1 mark awarded for suggesting amending the questions though the illustrations were a little weak.



ResultsPlus Examiner Tip

Look to relevantly develop answers as much as possible. Comman words, alloted marks and the space available are all prompts for how much should be written.

(b) Study Figure 9b which shows the responses given by 100 people to the questionnaire in Figure 9a.

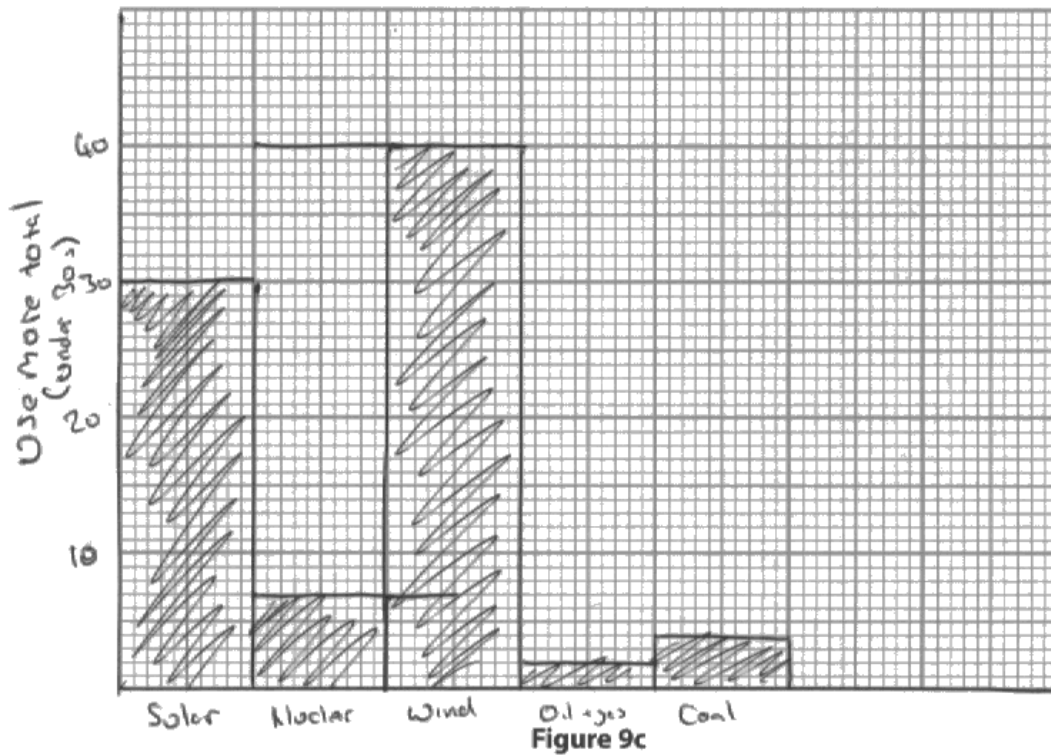
Future use of energy sources

Energy source	Solar		Wind		Nuclear		Oil & gas		Coal	
	Under 30	30 & over	Under 30	30 & over	Under 30	30 & over	Under 30	30 & over	Under 30	30 & over
Use more	30	38	40	12	7	30	2	6	4	10
Use less	3	4	2	18	17	9	30	19	20	27
Undecided	10	15	20	8	20	17	30	13	27	12

Figure 9b

(i) Draw a labelled graph below (Figure 9c) to present the "Use more" totals among under 30s for each of the five energy sources.

(4)



Energy source
(category)

(ii) Justify your choice of data presentation technique in Figure 9c.

(3)

Easy to read

Easy to create

allows comparison + contrast

clearly displays axis

allows trends to be monitored

(iii) What conclusions about the future use of energy sources can be reached from analysing the questionnaire responses in Figure 9b?

(6)

From the figure 9b we can see the overall most popular to use more is solar, followed by wind and nuclear.

The least popular to use more oil and gas and coal.

Many voted in fact to use less oil and coal, while not very voted to use less solar or wind.

Overall people are in favour of using more renewable sources than non renewable.

However very few ^{younger people} ~~people~~ were in favour of using nuclear power.

And many adults were unwilling to use wind power, possibly due to its aesthetics being unpleasant.

More adults were in favour of oil and gas than younger people perhaps due to their reliance on the ~~the~~ well known economy and conservative views.

(iv) Comment on other information you might need in an investigation on the future use of energy sources.

In a questionnaire to a person consider

(4)

Where the people live e.g. how far away from a renewable

energy producer they may be

their job & how much they drive.

Whether they already use renewable energy.

How much they pay for energy / whether they pay at all.

Their views on global warming

How much renewable energy will cost to initially construct.

When non renewable resources will become too expensive



ResultsPlus Examiner Comments

Item i - a conventional bar chart drawn which accurately presents the correct data. Maximum marks.

Item ii - 2 marks awarded for a generic list of diagram advantages without any development of points or specific relationship to the chart drawn in bi.

Item iii - a top Level 2 response for a decent summary of much of the data in Figure 9b. Many of the broad trends were identified and there was a hint of explanation. No supporting data or reference to the large number of undecided.

Item iv - a range of very valid suggestions as to how the questionnaire might be extended and worth 3 marks. Some evaluation and attention to the command word, comment would have seen this response at maximum marks.



ResultsPlus Examiner Tip

Evidenced conclusions are too rare and can keep candidates out of Level 3.

Question 10 (a) (i-iii)

These three opening tasks on the fieldwork sequence were generally well answered. Some of the statements given in (i) as possible aims were uncreditable, often on the grounds of lack of clarity. Many did give a suitable aim along the lines of a land use transect. It was evident which candidates had practiced devising questionnaires and evaluating their effectiveness, and which candidates had carried out land use surveys. Better responses to (ii) appropriately considered sampling methodology and made clear the point that accuracy can be checked. Some did not seem to understand the term, risk assessment though, fortunately, many did come up with valid risk assessment factors in (iii).

10 Urban environments fieldwork

(a) Study Figure 10a which shows data being recorded during an urban fieldwork investigation.

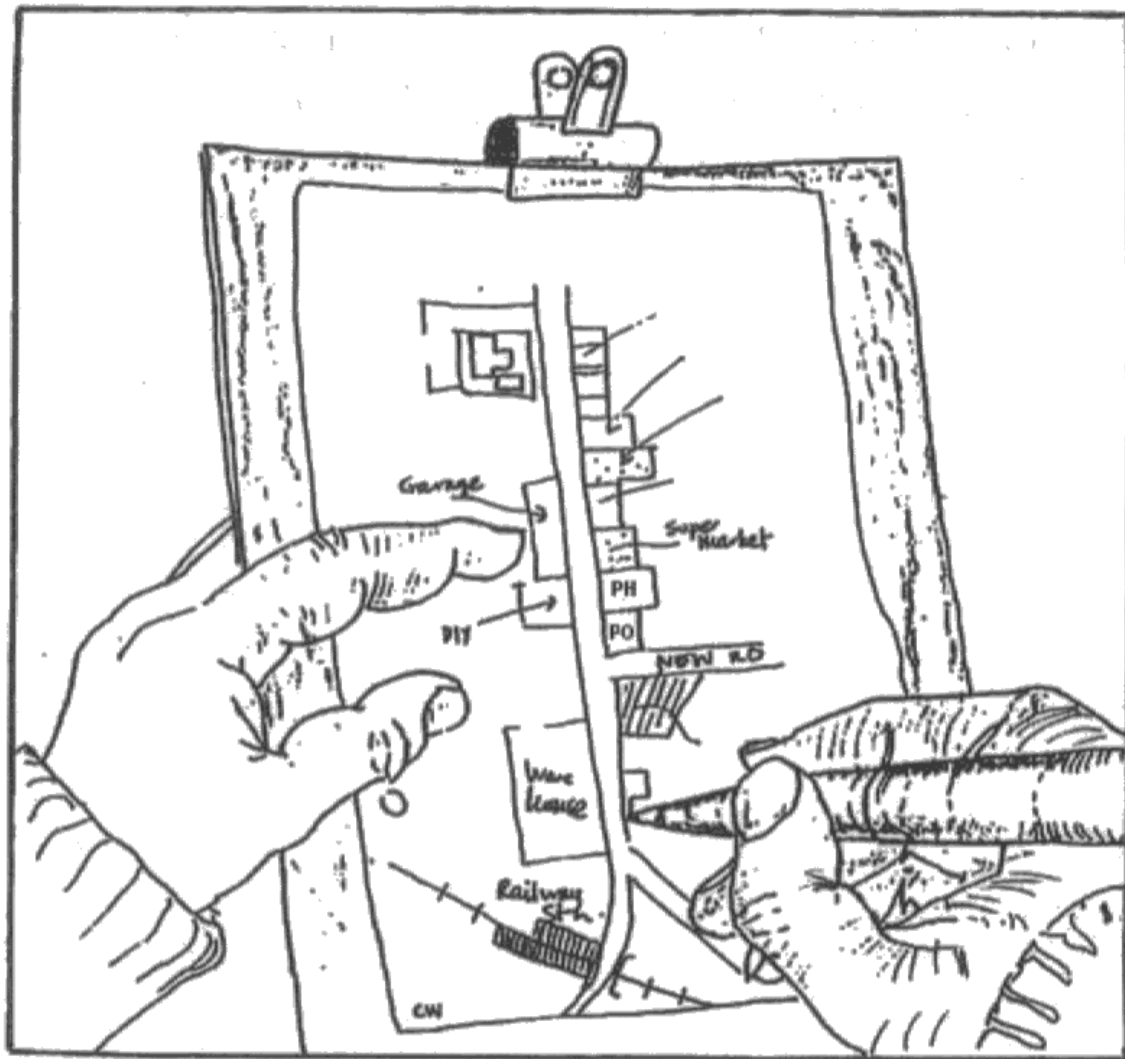


Figure 10a

(i) Suggest **one** possible aim of this investigation.

To find out the distribution of that
area,

(1)

(ii) Outline how you would attempt to ensure that the data collected was as **accurate** as possible.

(3)

to make the data ~~as~~ as more accurate as possible, we can increase the time of investigate for example, we did survey land use in each 20 steps, we can make each 10 steps, it twice more accurate than ~~20~~ steps.

(iii) Describe **two** possible risk assessments that need to be made with this type of fieldwork.

(4)

1. Been hited by car. when we walk ~~across~~ across the street we need to take care of ~~clashed~~ ~~by far~~ ~~to be~~ ~~need~~ by car.

2. Meet strangers or crime. It is crowded city centre so it might get all kinds of people don't take about your personal details to stranger people



ResultsPlus Examiner Comments

Item i - a rather meaningless statement that was not a valid aim. Interesting because candidate appreciates land use surveying if his answer to ii is anything to go by.

Item ii - the answer is one simple but poorly expressed point i.e. survey at more points = 1 mark. No substantive detail or development.

Item iii - the candidate offers some description of two acceptable risk factors - traffic and strangers (1+1 marks awarded) but no assessment of the risk or necessary action is described.



ResultsPlus Examiner Tip

Answers need developing. The mark total per item is a good guide as to how much.

10 Urban environments fieldwork

- (a) Study Figure 10a which shows data being recorded during an urban fieldwork investigation.

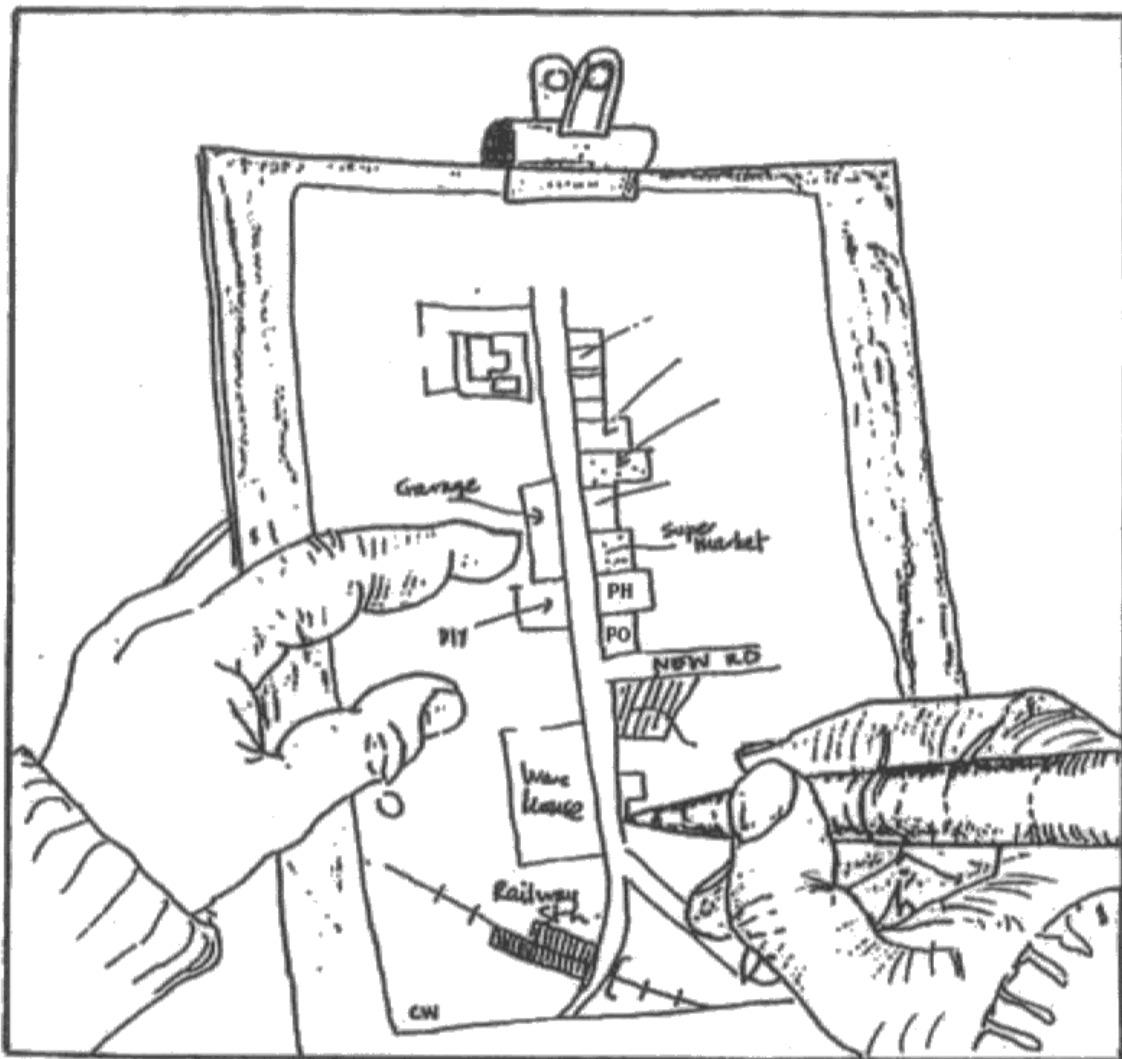


Figure 10a

- (i) Suggest **one** possible aim of this investigation.

(1)

To investigate the different land uses in a given area.

(ii) Outline how you would attempt to ensure that the data collected was as **accurate** as possible.

(3)

By working in a team, each person could be given individual tasks and so the process would have quickened.

By using a map, a more thorough investigation would have been able to have been made. By using a pen, pencil and ruler to draw ~~the~~ good sketches.

(iii) Describe **two** possible risk assessments that need to be made with this type of fieldwork.

(4)

1. You could get lost and so it is good to work in pairs and have a map to guide you.

2. You need to be aware of the traffic especially if you are walking near main roads.



ResultsPlus Examiner Comments

Item i - a clear and apt aim. Good use of Figure 10a.

Item ii - the candidate addresses a number of practical tasks around teamwork and equipment/resources. It is suggestive of actual practical fieldwork and is worthy of full marks.

Item iii - the answer is to the point but does not show some evidence of assessment of the two risk factors identified - traffic and getting lost. Each is a valid 2 mark response.



ResultsPlus Examiner Tip

These sorts of question reward candidates who use their practical fieldwork.

Question 10 (b) (i-iv)

These four post-data collection tasks were overall done well. The graphing exercise in i was straightforward given the limited data involved and many candidates gained maximum marks. Surprisingly high numbers drew a line graph, the remainder a bar chart/histogram. It is important that candidates read the question carefully; some lost marks or time by plotting the wrong data. sometimes too much data. Item ii was generally well understood as it also appeared in Questions 7 or 8 and was generally well answered. Conclusions in iii were often good and covered a variety of aspects of land use change rather than simply focussing on building height. Conclusions need to relate to the whole data set not just that which has been presented diagrammatically. Better responses applied urban land use models with some recognising the Burgess model zones in the data. They also synthesised the data using the key in Figure 10b to identify the patterns. Weaker responses tended to describe, often one or more of the three variables separately with limited reference to the distance data. Item iv on additional types of information with the frequently ignored command word, comment was not particularly well answered. Too few appreciated the link to secondary sources though some did refer to an environmental survey and internet searches.

(b) Study Figure 10b which shows the data collected in the urban fieldwork investigation along a transect extending outwards from the town centre.

Sampling site	1	2	3	4	5	6	7	8	9	10	11
Distance from town centre (metres)	0	100	200	300	400	500	600	700	800	900	1000
Building height (in storeys)	4	3	4	12	8	0	2	1	6	0	2
Use	PB	E	SO	SO	E	OS	T	SO	R	OS	R
Building age	i	i	ii	iv	iv	-	iv	iii	iii	-	iv

Key

Use

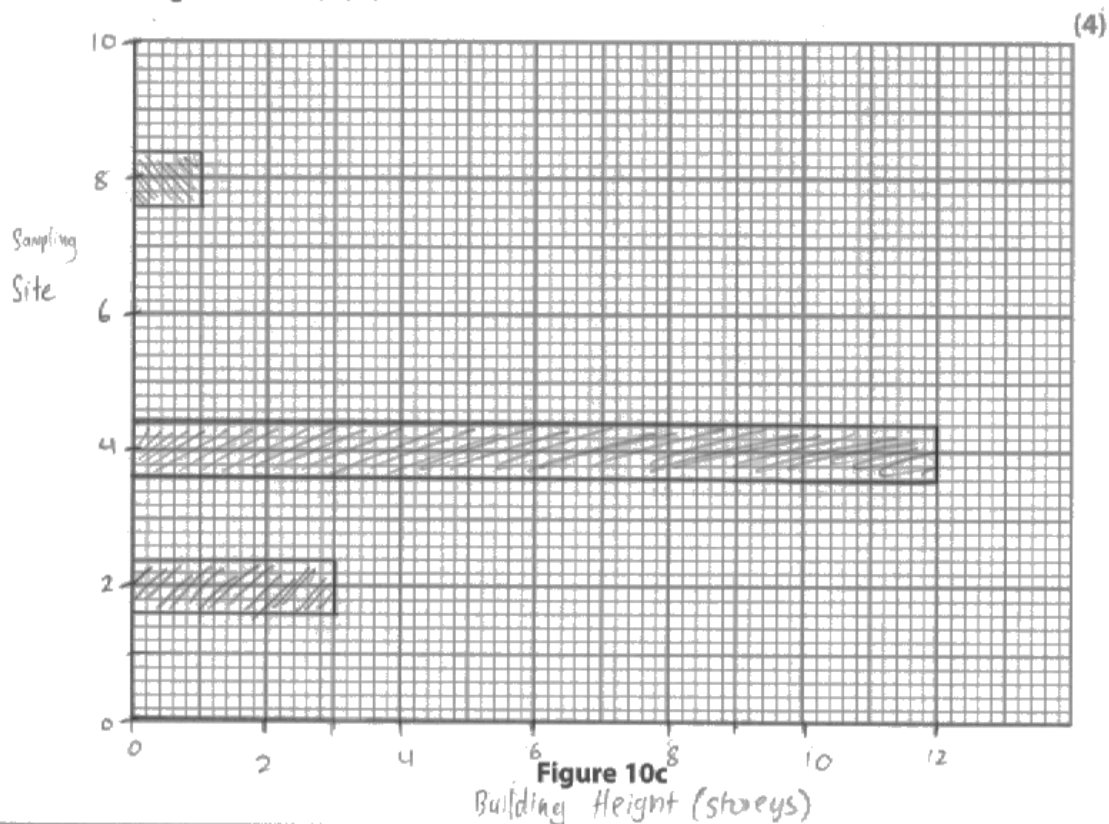
PB = public buildings
 SO = shops and offices
 OS = open space
 E = entertainment
 R = residential
 T = transport

Building age

i = 19th century
 ii = 1901–39
 iii = 1945–99
 iv = 21st century

Figure 10b

(i) Draw a labelled graph below (Figure 10c) to present the data for building height at sites 2, 4, 6, 8 and 10.



(ii) Justify your choice of data presentation technique in Figure 10c.

(3)

A Bar chart is used to represent the data in the table. It is easy to compare the different storeys to the site location, which can be evaluated later on. Also, a general pattern can be simply deduced from the bar chart making it a decent presentation technique.

(iii) What conclusions can be reached about building and land use changes along the transect from an analysis of the data in Figure 10b?

(6)

The land use changes are evident according to figure 10b, whereby newer buildings appear as you move along the transect. This is mainly to do with urban sprawl, which is when urban cities expand outwards and new buildings are made. For example, the 12 storey building at site 4 clearly indicates that the building is ^{newly} made from its ~~high~~ skyscrapers and ~~use~~ purpose of use. The use of land along the transect also changes according to the different parts of the city; site 1-5 is the CBD, site 6-8 is the industry district and 9-11 are all residential. Therefore, as you move further away from the city centre or transect, land use change from retail to industry to residential.

(iv) Comment on other information you might need in an investigation about changes in buildings and land use in an urban area.

(4)

Sometimes it is impossible to see a building every 100 metres. If the sample size is increased to every 50 metre this will make it more accurate. Additionally, it is important to find out the ~~number~~ population density of a building to ~~be~~ ensure that the buildings are used efficiently. Other factors such as rent are also important to see if there is a trend between distance from town centre and rent of land/building.



ResultsPlus

Examiner Comments

Item i - Maximum marks for a very presentable and accurate bar chart plotting the correct data.

Item ii - Offers two advantages of bar charts clarified : comparison and pattern. 2 marks awarded as there was no further development or third advantage.

Item iii - Some valid statements from data analysis and supported by some data creating a partial general picture of the transect. Not a comprehensive picture of the changes. Level 2 quality (4 marks).

Item iv - Suggests an improved fieldwork method and other data that could be collected. 3 marks awarded.



ResultsPlus

Examiner Tip

Use all the data provided when reaching conclusions!

(b) Study Figure 10b which shows the data collected in the urban fieldwork investigation along a transect extending outwards from the town centre.

Sampling site	1	2	3	4	5	6	7	8	9	10	11
Distance from town centre (metres)	0	100	200	300	400	500	600	700	800	900	1000
Building height (in storeys)	4	3	4	12	8	0	2	1	6	0	2
Use	PB	E	SO	SO	E	OS	T	SO	R	OS	R
Building age	i	i	ii	iv	iv	-	iv	iii	iii	-	iv

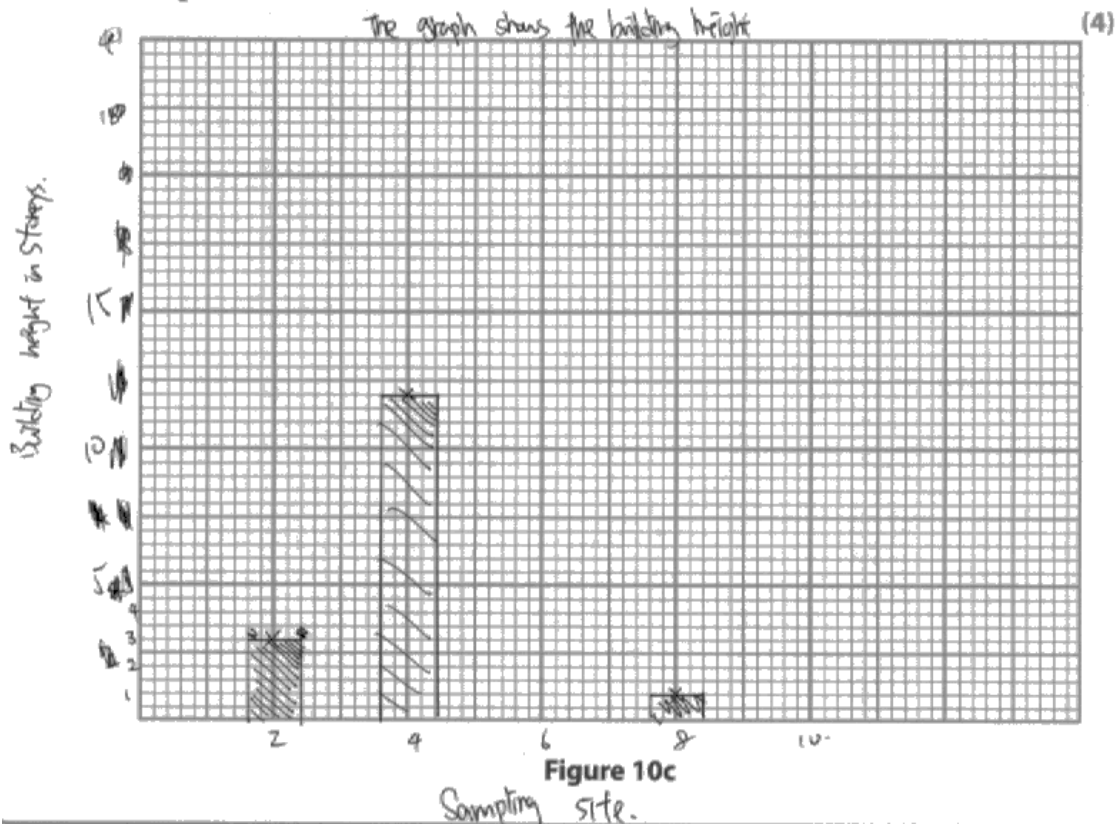
Key

Use
 PB = public buildings
 SO = shops and offices
 OS = open space
 E = entertainment
 R = residential
 T = transport

Building age
 i = 19th century
 ii = 1901-39
 iii = 1945-99
 iv = 21st century

Figure 10b

(i) Draw a labelled graph below (Figure 10c) to present the data for building height at sites 2, 4, 6, 8 and 10.



(ii) Justify your choice of data presentation technique in Figure 10c.

(3)

It is easier to draw. It is easy to understand. It is easier to see.

(iii) What conclusions can be reached about building and land use changes along the transect from an analysis of the data in Figure 10b?

(6)

The data shows that in site 2, it is the CBD of the city, because there is an entertainment place, the building height is 3, in site 4. It is also the CBD because there is shops and offices, the height in storeys is 12, which is the height normally in the CBD. In site 6, it should be the inner city, because there are open spaces with a height of 0. In site 8, it should also be the inner city because although there are the shops and offices, but the height wasn't high, also, the site near site 8 is transport and residential which are always in the inner city.

In this investigation, it has shown that the height in the CBD are always higher than the site ~~that~~ that outside of CBD.

(iv) Comment on other information you might need in an investigation about changes in buildings and land use in an urban area.

(4)

If our transect is divided to many buildings, we could do a smaller transect in transect and get more results for the investigation, more data to prove, then it would be more reliable.

In this investigation, we are not using any equipment to do, but it could be a benefit for us to prevent any error in the equipment.



ResultsPlus Examiner Comments

Item i - an untidy diagram with data plotted carelessly. Labelling of axes poor. 2 marks awarded.

Item ii - Generic, rather vague and unconnected to the graph. 1 mark only.

of observations with not all the data provided used. The reference to named urban zones helpful. Lower level 2 mark (3).

Item iv - Weak attempt to sharpen the reliability of the data. Rather vague. 1 mark.



ResultsPlus Examiner Tip

The experience of fieldwork is the best preparation for answering these questions

Question 11 (a) (ii)

As an E/F targeted question, the vast majority of candidates were able to come up with a correct country name.

(ii) Name **one** country in the Sahel that contains areas without a regular food supply.

(1)

Mali



ResultsPlus
Examiner Comments

Correct. Good map reading.



ResultsPlus
Examiner Tip

Accurate map reading is a key skill.

(ii) Name **one** country in the Sahel that contains areas without a regular food supply.

(1)

Mali Chad



ResultsPlus
Examiner Comments

Correct. Good map reading.



ResultsPlus
Examiner Tip

Accurate map reading is a key skill.

Question 11 (a) (iii)

The vast majority recognised the pattern of decreasing rainfall northwards and answered accordingly.

(iii) What happens to the average annual rainfall in a northerly direction from the city of Ouagadougou in Burkina Faso?

(1)

It decreases from 800 mm to
200 mm



ResultsPlus
Examiner Comments

Pattern correctly identified - 1 mark.
Nice to see supporting data!



ResultsPlus
Examiner Tip

Good map reading skills are important.

(iii) What happens to the average annual rainfall in a northerly direction from the city of Ouagadougou in Burkina Faso?

(1)

Average rainfall is high



ResultsPlus
Examiner Comments

This does not answer the question set which is about detecting a change not judging the levels!



ResultsPlus
Examiner Tip

Use the question to direct you to the relevant information in the figure. Use evidence from the figure explicitly in answers.

Question 11 (a) (iv)

This item did largely depend on candidate's knowing the decreasing rainfall trend northwards (Figure 11a) and then appreciating that lower rainfall generally equates with lower food production (1 mark) and how this happens (the second mark). Most candidates got the first mark and some the second by referring, for instance, to slow crop growth.

(iv) Suggest how this trend in rainfall is likely to affect food production.

(2)

It will wash out crops. Farmers will not be able to produce food due to the flooding that washes^{out} and destroys crops. However land will become more fertile, therefore resulting in better soil for growing crops.



ResultsPlus
Examiner Comments

This is the reverse argument and as this is a data-response item and the response contradicts the data it was not allowed. No marks.



ResultsPlus
Examiner Tip

Read the question and use the data!

(iv) Suggest how this trend in rainfall is likely to affect food production.

(2)

If there no rainfall animals and plants will die ~~there~~ therefore, lack of food.



ResultsPlus
Examiner Comments

This answers the question briefly and precisely. "Lack of food" = 1 mark with how = 1 mark i.e. animals and plants die. 2 marks awarded.



ResultsPlus
Examiner Tip

Clear, succinct responses are fine!

Question 11 (b) (i)

Most candidates were able to score at least 1 mark for their definition; some giving a full and accurate definition for 2 marks.

(b) (i) What is **soil erosion**?

(2)

Soil erosion is a natural process, but can be speeded up by human activity. It is where the top layer of soil is gone and the soil underneath is eroded away as nothing is protecting it.



ResultsPlus
Examiner Comments

This rather vague answer mentioning "gone," "away" and no protection was given the benefit of the doubt and awarded 1 mark as there was an inference of breakdown and transport.



ResultsPlus
Examiner Tip

Know your terms as in the specification! Precise meanings get 2 marks.

(b) (i) What is **soil erosion**?

(2)

The structure of soil is weakened and is very easily to be blown by wind or washed away by water.



ResultsPlus
Examiner Comments

This attempt to define the term is worthy of both marks as it refers to both removal and collapsed structure. It is sufficiently comprehensive and accurate for the 2 marks.

Question 11 (b) (ii)

Most candidates achieved the first 2 (2x1) marks easily by identifying relevant causes eg deforestation, overgrazing ... The second 2 (2x1) marks challenged some; they were required to outline how that led to soil erosion eg no tree roots to bind soil together, which would have been worth 1 mark if linked to deforestation.

(ii) Outline **two** causes of soil erosion.

1 deforestation, the removal of trees & other vegetation leaves soil bare and vulnerable. (4)

2 over grazing, this is when animals eat all the vegetation, leaving the soil bare & vulnerable



ResultsPlus
Examiner Comments

Deforestation and overgrazing are worth 2 marks (2x1). Development of these factors is not long and detailed but sufficiently clear for the award of another 2 marks (2x1) - how soil gets to the bare and vulnerable state is mentioned and that suffices!



ResultsPlus
Examiner Tip

The development of the factors is just enough. To be safe perhaps add a bit more process!

(ii) Outline **two** causes of soil erosion.

(4)

1 Lots of animals constantly walking over a certain area of soil (eg erosion of a path by humans)

2 Rainfall. ~~When rain falls it can~~ The energy which the rain hits the soil means that the soil is chipped away, which leads to erosion.



ResultsPlus
Examiner Comments

This is a 1+1 mark response. In 1. an explicit factor is given i.e. trampling but no development of process, therefore, 1 mark awarded. In 2. rainfall and not heavy rainfall is given and there is some hint of process i.e. chipping away. Overall, worth 1 mark (not enough for 2 marks).



ResultsPlus
Examiner Tip

Be precise (e.g. heavy rainfall) and spell it out more (e.g. how does trampling lead to soil removal ?)

Question 11 (b) (iii)

This item was well answered in the main. Many candidates were able to provide at least two techniques and develop an answer as to how they reduced the risk of soil erosion. Specific located examples and in some cases, mini-case studies receiving high marks were provided.

(iii) Describe how soil erosion is being managed in areas affected by desertification.

Reference to a named area may help your answer.

(4)

* By practicing afforestation / Replantation in chad to replace forests that have been cut down.

* By using better farming practices in order to capture nutrients like ~~rotted~~ contour farming in Burkina Faso.



ResultsPlus Examiner Comments

This answer is as though we had asked for two ways of managing soil erosion. Both ways i.e. afforestation and better farming practices are valid and even though they are clarified/exemplified by the odd word are only worth 1 mark each. There is no reference as to how they work to manage soil erosion. Burkina Faso is named but not related to strategy.



ResultsPlus Examiner Tip

Describe how is the command word. This answer has little description and even less how!

(iii) Describe how soil erosion is being managed in areas affected by desertification.

Reference to a named area may help your answer.

(4)

In the Sahel region in Africa, there have been some efforts to reduce soil erosion. They are planting tree belts which helps to keep the soil together through the roots and prevents wind erosion. Contour Terracing of sloped areas also prevent erosion, especially sheet erosion. In Burkina Faso, Oxfam started an initiative for a catchment area to catch and store rainwater which can be used for irrigation and prevents ~~the~~ surface run off as the water is directed to the catchment area.



ResultsPlus
Examiner Comments

This is a maximum mark answer. There are three techniques offered with one presented as a specific scheme in Burkina Faso. Importantly, there is some process i.e. how soil erosion is minimised.



ResultsPlus
Examiner Tip

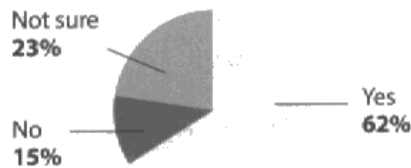
Answer the question set as has been done here !

Question 11 (c)

The global warming debate is essential content in the specification but some candidates appeared unfamiliar with the idea of uncertainty about both its existence and its causation. Even the better answers were rarely balanced in terms of their treatment of existence and causation. There was evidence that causation uncertainty was better known to the candidates; some did refer to natural causes alongside human-induced pollution.

(c) Study Figure 11b which shows the results of a public opinion survey about global warming, taken in 2012.

Do you think the world is becoming warmer?



Do you think the world is becoming warmer due to human activity?

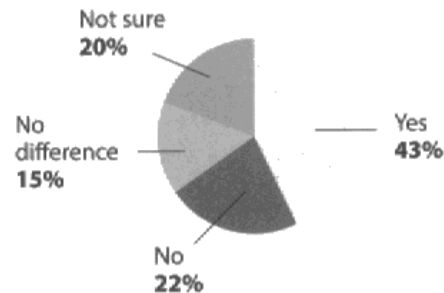


Figure 11b

Explain why opinion about global warming is divided.

(6)

Global warming is believed to be caused by natural events, however, only a number of the population actually believe global warming is caused by human activity. Firstly, the division of opinions on global warming may be due to the lack of education. Since many believe it occurs ~~from~~ naturally, this proves that the lack of knowledge is the reason why people don't fully understand the ~~fact~~^{true} causes of global warming. Therefore, the different opinions arises from a low education on the causes of global warming.



ResultsPlus
Examiner Comments

The candidate clearly found this question difficult. There was little or no use made of the pie charts and nor any depth of explanation. The idea of division of opinion was made with some attempt to offer a reason. It was very unbalanced and fits into Level 1 (2 marks).

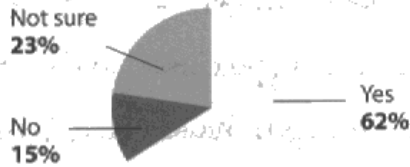


ResultsPlus
Examiner Tip

Always read and use the stimulus material carefully!

(c) Study Figure 11b which shows the results of a public opinion survey about global warming, taken in 2012.

Do you think the world is becoming warmer?



Do you think the world is becoming warmer due to human activity?

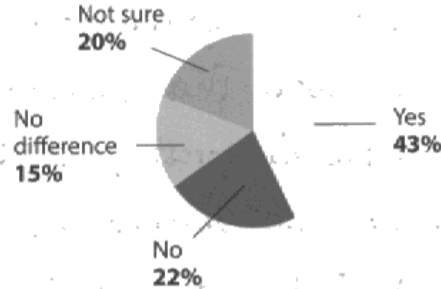


Figure 11b

Explain why opinion about global warming is divided.

(6)

Though the majority of people think global warming is occurring, 62% agreed the world is getting warmer, the causes of this are split. Only 43% think it is due to human activity, this may be due to people believing in other causes such as sunspot activity and change in orbital patterns. 20% of people weren't sure if it was due to human activity, this maybe due to the lack of ^{awareness} ~~education~~ concerning global warming.

Some people don't believe in global warming as they believe it is a natural process which may explain why 22% don't think the world is becoming warmer due to human activity.



ResultsPlus
Examiner Comments

This is a good example of one of the better responses produced. There is a degree of balance evident with reference made to both pie charts; data is quoted. The concept of climatic uncertainty and of division of opinion as to causation is understood by the candidate. The introduction of information about natural causes from the candidate's own knowledge is another positive about this answer which does reach Level 3 (5 marks).



ResultsPlus
Examiner Tip

Greater balance in the way that the two pies were treated (e.g. why do 38% think it isn't happening?) helpful.

Question 11 (d)

This was reasonably well answered but the focus of the question was often missed. The question sought a presentation of management techniques and of how they are sustainable in the context of an area of TRF chosen because it has problems. Too many responses were accounts of either the problems or of management issues rather than of sustainable techniques.

(d) Discuss how a named area of threatened tropical rainforest is now being managed more sustainably.

(9)

Name of area: Borneo, Malaysia

The threatening rainforest of Borneo, Malaysia has attracted governments and firms to manage the area in a more sustainable manner. Firstly, the amount of deforestation has been cut down and regulations such as selective logging ~~has~~ ^{implemented} been ~~put into place~~. Logs which are close to dying are allowed to be logged whereas unmaturing ones are to be prevented. Other ways such as heli-logging prevents ^{the damaging of rearing} ~~the~~ trees whereas local authorities patrol the area to capture any illegal deforestation. Additionally, areas with bare land are exposed to soil erosion, which is why agro-forestry has been introduced. The planting of crops on ex-tree areas will provide nutrients for future trees, which will be planted once the crops are harvested. Buffer zones in some parts of the forest protect it from any logging activities, legal or illegal. This will create a rich biodiversity and sustains the ecosystem. Mining in these areas have also been managed. Trees must be logged down before such activities can be made. ~~All the~~ The management in these areas have proven to work relatively well, however not all parts of the forest can be supervised and illegal logging may still ~~continue~~ ^{persist}. These methods of management such as heli-logging has been proven to be expensive thus it may not be ^{the most} ~~the~~ efficient method to manage the rainforest.



ResultsPlus
Examiner Comments

This is a thorough account which offers a range of management techniques in the context of Borneo though the techniques are generic. Each technique is developed without any direct mention of sustainability though benefits such as biodiversity are given. It is a good general account of forest management rather than precisely what was asked for. Level 3 in quality but not top (8 marks awarded)



ResultsPlus
Examiner Tip

Make sure candidates are addressing the key concepts in each questions- sustainability was often missed here.

(d) Discuss how a named area of threatened tropical rainforest is now being managed more sustainably.

(9)

Name of area: Amazon rainforest, South America

In the Amazon rainforest, there are a number of threats and solutions for deforestation.

Clearing and felling of trees in the Amazon is not new, but the indigenous people of the Amazon, the Amerindians did so at a sustainable rate. Now, due to human activity, the rate is anything but sustainable. Trees are being cleared rapidly for timber, medicinal properties, ~~wood~~ manufacturing, building transport systems, hydroelectric power and so much more. Deforestation negatively impacts the Amazon. The loss of biodiversity is a large concern because humans rely heavily on biodiversity. There is loss of land from the use of hydroelectric power, which floods land and displaces indigenous tribes. It ~~does however, also positively impact~~ ^{also contributes to global warming} because tropical rainforests are such large carbon sinks ~~the economies of LDCs, but does so at a very high cost~~.

Some solutions in the Amazon include heli-logging, whereby the logs are transported through heli-helicopters so other trees don't have to be destroyed just for transportation sake. There is also the use of policies being set up stating that only ~~set~~ a certain number of trees can be removed per hectare of land in the Amazon. They are also ~~afforesting~~ practicing ~~a~~ afforestation in some areas to help ~~with~~ counter the alarming rate of deforestation.



ResultsPlus Examiner Comments

A well-presented account but over half is devoted to the problems and threats in TRFs, namely deforestation and its drivers. The last paragraph on solutions is very relevant and introduces a couple of management techniques but with sustainability absent. It is a generic forest management answer attributed to Amazonia and Level 2 in quality.



ResultsPlus Examiner Tip

The question was about more than mere forest protection. Spend time understanding the question - command words and key words.

Question 12 (a) (ii) (1)

A straightforward task based on accurate reading of Figure 12a. There was no evidence that the presentation of the bar graph showing two sets of data confused candidates. The vast majority gave the correct answer.

(ii) Name the region in which Carrefour has:

(2)

1. most stores

Rest of Europe



ResultsPlus
Examiner Comments

The only correct response - 1 mark.



ResultsPlus
Examiner Tip

Read graphs carefully!

(ii) Name the region in which Carrefour has:

(2)

1. most stores

Asia



ResultsPlus
Examiner Comments

The wrong region. Asia has the smallest bar and the smallest numerical data.



ResultsPlus
Examiner Tip

Look at the graph more carefully!

Question 12 (a) (ii) (2)

A straightforward task based on accurate bar graph reading. There is no evidence that the presentation of Figure 12a which its one set of bars but two numerical data sets confused candidates. Most candidates got France as the correct answer.

2. highest sales

France



ResultsPlus
Examiner Comments

Correct response - 1 mark.



ResultsPlus
Examiner Tip

Important to pick up these early straightforward marks!

2. highest sales

Rest of Europe



ResultsPlus
Examiner Comments

This is the correct answer to 12aii1 not 12aii2. Highest sales are in France.



ResultsPlus
Examiner Tip

These early questions are targeted at D/E/F candidates and should be accessible to a large proportion of the cohort.

Question 12 (a) (iii)

This item in a unit on globalisation required candidates to realise that the development of Latin America and Asia are a key part in the rise of a global economy. Most did and referred to bigger markets, rising incomes and TNCs having global reach for profit. Some referred to lower labour costs and some had no valid suggestion to make.

(iii) Suggest **one** reason why Carrefour's recent growth has taken place mainly in Latin America and Asia.

(2)

Latin America and Asia are NIC's and tiger economies. These countries are getting richer in a short amount of time. They are higher income to spend on luxury goods and services.



ResultsPlus
Examiner Comments

This answers the question precisely - NICs, getting richer, more spending, luxuries ... A comfortable 2 marks.



ResultsPlus
Examiner Tip

General geographical knowledge always stands you in good stead!

(iii) Suggest **one** reason why Carrefour's recent growth has taken place mainly in Latin America and Asia.

(2)

Because these ~~countries~~ areas are starting to get out of the LIC sectors and they are spending more money.



ResultsPlus
Examiner Comments

This is a strong 1 mark answer not quite enough explanation and clarity for 2 marks. "... getting out of LIC" and ".. spending more .." is on the right lines but vague.



ResultsPlus
Examiner Tip

Spell matters out clearly! There are things that need joining up here like income.

Question 12 (b) (i)

This term stated in the specification was generally well known to the candidates. There was the usual range of 0, 1 and 2-mark responses though many did get the full marks, generally where they added precise detail to the broad pattern of change.

(b) (i) What is the **global shift** in manufacturing?

(2)

global shift is where all the factories have been moved abroad.



ResultsPlus Examiner Comments

This is a classic 1 mark response where a broad indication only of what has happened is given i.e. factories have gone abroad. Vague but has to have some modest credit.



ResultsPlus Examiner Tip

These terms have precise definitions; it is a good idea to know them so marks are not dropped as they have been here!

(b) (i) What is the **global shift** in manufacturing?

(2)

The global shift in manufacturing refers to the changing location of production at a global scale. It is mainly occurring from HICs to NICs.



ResultsPlus Examiner Comments

There are the full 2 marks here i.e. the broad idea of global re-location plus "HICs to NICs." There are better 2 mark responses than this where examples and greater precision are given.

Question 12 (b) (ii)

This was well answered by many candidates. Most knew of two basic contributory factors and were able to develop one if not both into full explanatory reasons for the global shift.

(ii) Outline **two** reasons for the global shift in manufacturing.

(4)

1 Higher minimum wages in HIC's drive down profits so TNC's look elsewhere to profit more and more sales.

2 Government incentives create positive working environments that attract TNC's to move, for example reduced taxes and export input tax.



ResultsPlus Examiner Comments

Both reasons offered are worthy of 2 marks. Firstly, there is inference of lower labour costs elsewhere; more profit and more sales are also worth 1 mark. Secondly, government incentives attract .. = 1 mark with reference to reduced tax = 1 mark.



ResultsPlus Examiner Tip

Try to be as explicit as possible e.g. in 1. add by cheaper labour in ... after "profit more."

(ii) Outline **two** reasons for the global shift in manufacturing.

(4)

1 You can get the work done cheaper in different countries.

2 Another reason is ~~that~~ because of transport networks you can get from one side of the world to the other in ~~12~~²⁴ hours. They are making the products closer to the source and shipping them away.



ResultsPlus
Examiner Comments

There are 3 marks here. 1 mark for cheaper in 1. and 2 marks for better transport and not having to sell where produced.



ResultsPlus
Examiner Tip

Spell it all out! Cheaper means more profit; needs to say that in 1. for maximum marks.

Question 12 (b) (iii)

On the whole a well-answered item with many candidates being familiar with the benefits and costs that TNCs bring, usually to LICs. There were interesting responses about infrastructure, jobs and unemployment, profit leakage and vulnerability to departure. The focus of answer was sometimes too much on the individual person rather than the nation but, nevertheless, the question tended to score positively.

(iii) Describe **one** benefit and **one** cost to countries in which TNCs set up new businesses.

(4)

Benefit

It provides new infrastructure and the TNC's build new roads for access and often build housing for its employees.

Cost

TNC's take most of the money made out of the country and send it back to where the company was created therefore money is drained out of the country.



ResultsPlus
Examiner Comments

Both the benefit and the cost are valid and have been sufficiently developed for 2 marks to be awarded to each. The infrastructure benefit = 1 mark with roads and housing for the development mark. The same approach can be applied to arrive at 2 marks for cost.



ResultsPlus
Examiner Tip

This is the right length and depth of answer for a 2+2 mark question.

(iii) Describe **one** benefit and **one** cost to countries in which TNCs set up new businesses.

(4)

Benefit

The local people get jobs so then they can work
now there instead of working on a farm

Cost

They get an income because of the TNC's
then having to give money to the employees
and also the country for the land use so the
country will get more of an income with money.



ResultsPlus
Examiner Comments

There is 1 mark under benefit i.e. jobs but no development mark. The response to cost is confused and reference to income appears to make it more a benefit than a cost; there is nothing to credit it!



ResultsPlus
Examiner Tip

Read the question carefully! Costs are disadvantages.

Question 12 (c)

International migration almost always seen as synonymous with immigration which draws sweeping statements generally of a negative nature even at IGCSE. Most answers focussed on the impact and strain on resources and issues around crime, conflict, refugees and lower quality of life. There was a noted lack of the positive impacts of immigration even among the better responses. Reference to the need to manage emigration e.g. brain-drains occurred in the rarest of cases. Very few also gave examples.

(c) Study Figure 12b which gives information about migration into Australia (population 22 million) in 2010.

Main source of migrants entitled to settle	Main source of refugees seeking asylum
25800 from New Zealand	2700 from Afghanistan
14700 from China	890 from Iran
11000 from UK	640 from Sri Lanka
Total (all countries) 127000	Total (all countries) 8500

Figure 12b

Explain why countries, such as Australia, need to manage international migration flows.

(6)

Australia needs to manage the migration flows so that the country doesn't become overcrowded and the unemployment rates go up. This will lead to a stress on local services and cause taxes to rise.

Another reason is that there may be some ethnic conflicts that they do not want to get out of hand. This could lead to a rise in crime and makes Australia less attractive to tourists.

Finally, Australia wants its economy to grow so they will want more skilled people to immigrate so that they make more GDP. Thus Australia will control its migration flows so Australia becomes more developed and economically better.



ResultsPlus

Examiner Comments

This is a good example of one of the better responses. International migration = immigration, perhaps understandably given Figure 12b. The candidate offers three decent paragraphs containing explanation; one about pressure on resources and jobs, one about ethnic conflict and a pleasing final one highlighting an immigration positive i.e. skilled labour and economic growth. This is clearly Level 3 (6 marks).



ResultsPlus

Examiner Tip

International migration = emigration as well as immigration.

(c) Study Figure 12b which gives information about migration into Australia (population 22 million) in 2010.

Main source of migrants entitled to settle	Main source of refugees seeking asylum
25800 from New Zealand	2700 from Afghanistan
14700 from China	890 from Iran
11000 from UK	640 from Sri Lanka
Total (all countries) 127000	Total (all countries) 8500

Figure 12b

Explain why countries, such as Australia, need to manage international migration flows.

(6)

They need to manage the migration flow due to the rising number of migrants is huge.

Most will come to seek a better quality of life but that means there will be a greater demand for housings especially if over 135000+ people are coming in.

Also there may be high unemployment rates and rapid urbanisation in some areas which could create some problems that are similar to those in cheng-ching in china.

Which creates homelessness and a lack of jobs. Therefore they need to manage their migration flow.



ResultsPlus
Examiner Comments

A negative view of immigration again. It is limited in range with reference only to pressure on housing and jobs. There is little explanation. It creeps into Level 2 (3 marks) as a response to the question set.



ResultsPlus
Examiner Tip

The command word 'Discuss', should encourage candidates to look for the 'two sides' of every issue, problem, question.

Question 12 (d)

There were many good responses to this item and significant numbers did so by means of learned case studies where specific strategies matched location and had been extended in terms of detail e.g. Bhutan, Zanzibar ... Some, unfortunately, focussed too much on the problems of global mass tourism rather than its solutions and sustainability often barely got a mention. How strategies were sustainable was the essence of the question so this was a mark limiter.

(d) Discuss attempts being made to make tourism more sustainable.

Reference to examples may help your answer.

(9)

There are many attempts being made to make tourism more sustainable. The main point would be package holidays, ^{offered by people such as 'Thomas Cook'} creating these holidays makes people more likely to buy especially if it's all inclusive.

which means more people ^{will} want to travel to other countries which will increase their popularity and earn a relatively good income.

The UK also makes a lot of money from tourism as that plays a major part in the countries' income.

The increase in better transportation such as planes has made it easier than ever to travel abroad.

so now people are more likely to visit other countries.

As well as the increase in technology, people can now book holidays directly from their phone which is now so much easier than having to go the shop and asking them to do it for you.

Now it's so much easier to go to other places which increases the economy and popularity of that country.



ResultsPlus
Examiner Comments

This certainly does not answer the question, especially if sustainability is understood as environmental. It could be argued that package holidays and D-I-Y holidays aid economic sustainability but the answer was really wide of the mark. It is a loose collection of descriptive points about how tourism operates and is of Level 1 quality (3 marks).



ResultsPlus
Examiner Tip

Sustainability is a key concept whose meaning all candidates should know!

machu picchu = peru
problems = human waste, erosion, litter

(d) Discuss attempts being made to make tourism more sustainable. ^{soluti = limit number, increase price, better path, better toilet, trekking camp limit, brighten}

Reference to examples may help your answer.

Machu Picchu in Peru is a very historical site, with rich Inca and Incan architecture. This means it is very popular, and attracts over 2500 tourists a day. However this has lead to major problems including landslides, soil erosion, pollution, littering and it has created a corridor of human waste.

But developments are being made to prevent this. The most major change is ^{reducing} ~~limiting~~ the number of people on the trail to prevent soil compaction and erosion. This is done by limiting the number of people on the trail to 500 every day and ^{increasing} the cost from £10 to £30. Erosion is also prevented by the creation of new paths with strong, reinforced boardwalks, and ^{it is} closed in monsoon season to prevent the mass movement of soil.

Another major problem was the pollution across all areas of the trail. This has been combated by introducing ^{more} ~~permits~~ ~~for guide~~ bins to the area, and adding a legal requirement to carry a bin liner. This means all rubbish is removed, which will mean no animals are damaged. The introduction of a better toilet facilities and a new waste disposal scheme has removed the dangerous build up of ^{human} ~~human~~ waste that was causing pollution and disease. Previously there had been a lot of crime and frequent ~~lootings~~ ^{lootings}. However this has been dramatically reduced by new permits for official trekkers, and new security guides.

Total for Question 12 = 30 marks



ResultsPlus
Examiner Comments

This is a Level 3 response which deals with sustainable solutions to mass tourism problems but somehow manages to never use the term, sustainable. The specific strategies of which there are a few do match the location of the case study chosen and are well explained in terms of how they work and their impact on the problems identified earlier. It is a well-chosen case study where a sustainable development plan has been put into action; the candidate shows good knowledge of the plan.

Refer to sustainability, both what it means and how the specific strategies are sustainable. It stopped top Level 3 (9 marks) being awarded.



ResultsPlus
Examiner Tip

Learn your key terms.

Question 13 (a) (ii)

Most candidates distinguished between highest GDP i.e. Argentina, Uruguay and Suriname and highest % increase in GDP i.e. Peru. Most named Peru for the 1 mark.

(ii) Which country showed the largest percentage increase in GDP? (1)

Ecuador



ResultsPlus
Examiner Comments

Wrong. Ecuador 4.5% increase; Peru 5.1%.
Peru is the correct answer.



ResultsPlus
Examiner Tip

Always read the Figures carefully!

(ii) Which country showed the largest percentage increase in GDP? (1)

Peru



ResultsPlus
Examiner Comments

Peru is correct. 1 mark.



ResultsPlus
Examiner Tip

Reading the Figures carefully prevents throwing
away straightforward marks.

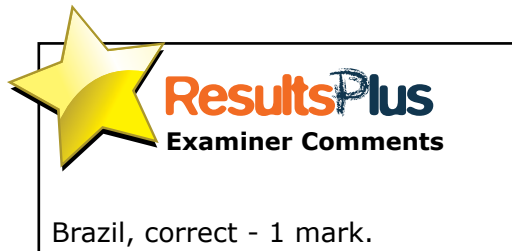
Question 13 (a) (iii)

The term, BRICS is in the specification and an acronym for Brazil, Russia, India, China and South Africa. The vast majority seemed to know this and got 1 mark for naming Brazil.

(iii) Which of the BRICS is shown in Figure 13a?

(1)

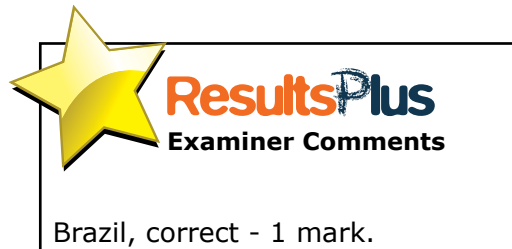
Brazil



(iii) Which of the BRICS is shown in Figure 13a?

(1)

Brazil



Question 13 (a) (iv)

Most candidates gained at least 1 mark for noting the existence of a development gap within the twelve countries of South America, usually with reference to the choropleth showing contrasting GDP per person. Many also picked up the second mark by quoting supporting data or by outlining the general development picture within the continent. The concept of a development gap was clearly understood by almost all candidates.

(iv) Identify **one** piece of evidence in Figure 13a that there is a development gap within South America.

(2)

Some countries in South America such as Suriname have a GDP of more than \$13,000 per capita. However, other countries such as French Guiana have a much lower GDP of less than \$4,000 per capita.



ResultsPlus Examiner Comments

Both marks gained. Two countries at the extremes of the GDP range within the continent named and GDP figures given as evidence of the gap between them.



ResultsPlus Examiner Tip

Adhering to the task set as has been done pays!

(iv) Identify **one** piece of evidence in Figure 13a that there is a development gap within South America.

(2)

Some countries in South America such as Suriname have a GDP of more than \$13,000 per capita. However, other countries such as French Guiana have a much lower GDP of less than \$4,000 per capita.



ResultsPlus Examiner Comments

The GDP figure range is quoted from the map and Argentina named as a richer country. We are just a little short of hard evidence of the gap within South America for 2 marks to be awarded. 1 mark awarded.



ResultsPlus Examiner Tip

Would have been better if you had finished off your answer by naming French Guiana.

Question 13 (b) (i)

Some candidates seemed to gain a mark by re-working the words, debt and relief into an answer of sorts but which was sufficiently on the right lines to get some credit. Candidates who knew the term from their studies and wrote accordingly gained maximum marks. There were more of the vague 1 mark responses than of the accurate 2 mark kind. Most candidate got some credit on the item.

(b) **Debt relief** is a strategy for reducing disparities in development between countries.

(i) How does debt relief work?

(2)

Debt relief is when any debt owed to other countries, i.e. minerals or money, do not have to be payed back, so they can focus on disparities.



ResultsPlus
Examiner Comments

There is enough for 2 marks here: debt owed- don't pay back-focus on disparities.



ResultsPlus
Examiner Tip

Know your terms! Some are assessed every year.

(b) **Debt relief** is a strategy for reducing disparities in development between countries.

(i) How does debt relief work?

(2)

debt relief is when HIC loan money to LIC but however they expect the LIC to return the money when they start making profit.



ResultsPlus
Examiner Comments

0 marks. Loans are not debt relief. Debt relief is to prevent loans being repaid. Confusing the time-sequence.



ResultsPlus
Examiner Tip

Debt relief is in the specification. It's a pity to lose 2 marks for not learning the terms.

Question 13 (b) (ii)

This item tended to be done only modestly well. There were a lot of aid answers, sometimes for both strategies requested eg bilateral aid, multilateral aid, appropriate aid ... A few candidates also repeated the debt relief strategy from b(i). The other mark limiter was the usual failure of some candidates to explain themselves properly in terms of the question set i.e. how the strategy helps to reduce disparity. There were some responses on fair trade and its role in reducing farmer poverty.

(ii) Outline **two** other strategies for reducing disparities in development. (4)

1 Aid in the form of bilateral aid. Governments can give money to other governments and then they choose what to do with the money. It often goes to the poorest people in the form of improved water supply or education.

2 Disparities in development in one country can be changed by giving appropriate aid to poor people. Industrial equipment that they can easily use is an example of this. This can help ~~make~~ ^{reduce} the disparities in development.



ResultsPlus Examiner Comments

The first strategy i.e. bilateral aid spent on services improves life for poor is fine for 2 marks. This can be seen as appropriate aid. Hence, strategy 2 is repetitive. It adds nothing to the response; there is no strategy or no reference to how it works. No further credit given; the overall mark is 2.



ResultsPlus Examiner Tip

You always need two distinctive ways/strategies/reasons/factors for this type of 4-mark question.

(ii) Outline **two** other strategies for reducing disparities in development.

(4)

1. Aid can be given to an international organisation which then distributes the aid to countries in most need (multilateral aid) or aid can be given ~~to~~ directly to the government of that country (bilateral). The aid can be in ^{form of} money, food, weapons etc.

2. LICs can trade with other countries. This means that they are able to export goods that the world needs and they can import goods which will help the countries develop economically, reducing disparities in development.



ResultsPlus Examiner Comments

This example gives the two classic strategies, aid and trade both of which were awarded the maximum 2 marks. Aid is well outlined though the link to poverty reduction is more implicit than explicit i.e. money, food .. The piece on trade is slightly more apt as an answer to disparity reduction i.e. exports and economic development.



ResultsPlus Examiner Tip

Always think what is going to get the second mark after naming the strategy gets the first!

Question 13 (b) (iii)

This was a very precise question which required candidates to know the three indicators used in the measurement of HDI and the concept of an index scored out of 1. Overall, the item answered well with many candidates appreciating that it was an average of three correctly identified indicators. Few referred to the scoring on a scale from 0 to 1. Weaker responses either adopted a scatter gun approach of naming a random range of indicators or by writing vaguely about a balance of economic and social indicators being involved.

influence this.
(iii) Describe how the Human Development Index (HDI) is calculated. (4)

The HDI is calculated using three values, one social, one economic and one health. The economic is the gross domestic income per capita. The health is the child mortality rate. The social is the literacy rate in a particular country.



ResultsPlus
Examiner Comments

Awarded 3 marks for the following 3 points: income per capita, literacy rate and the idea of a balance of three contrasting types of indicator (social, economic...). Life expectancy was replaced by child mortality in this instance.



ResultsPlus
Examiner Tip

Know the three constituents of HDI precisely. Knowing what an index is is also important.

(iii) Describe how the Human Development Index (HDI) is calculated.

(4)

HDI is calculated using the GDP per capita, the life expectancy and adult literacy rate of a country. These are all put together to give a figure from 0-1 which has three decimal places, ~~any~~ for example, Norway has ~~a~~ HDI of ~~0.955~~ 0.955. The higher the number is the ~~more~~ higher the development, ~~the~~



ResultsPlus Examiner Comments

The candidate knows the correct three variables that make up the HDI and that they are combined to give a score. This is maximum mark already. The sentence on the meaning of the score, including the example is excellent but full marks have already been gained.



ResultsPlus Examiner Tip

This is how answers should read. Well done!

Question 13 (c)

This was well answered though the focus of answers tended to be on negative rather than positive impacts. Statements about death, starvation and war outweighed any beneficial effects that increasing population might have on quality of life. Candidates did manage to develop these negative impacts and score reasonably well. Surprisingly few candidates made reference to the data and countries listed in Figure 13b.

(c) Study Figure 13b which shows five countries experiencing high rates of population growth.

POPULATION (millions)

Country	1950	2010	2050 (projected)
India	370	1200	1700
China	550	1300	1300
Nigeria	37	158	390
Indonesia	75	240	293
Ethiopia	18	83	145

Figure 13b

Explain the consequences of high rates of population growth for the quality of life within a country.

(6)

Can lead to over population, leads to a lot of pressure on Government to ~~so~~ ~~so~~ Often this results in lack of food and overcrowding in urban areas. For this reason quality of life goes down. If population & growth is



ResultsPlus Examiner Comments

A very short response that did not get out of Level 1 because it was basically a list of negative impacts eg overcrowding, food shortage... though the link to quality of life was pleasing to read.



ResultsPlus Examiner Tip

It could be the case that time was an issue and the answer is incomplete. Time management on this long paper is a key part of examination preparation.

(c) Study Figure 13b which shows five countries experiencing high rates of population growth.

POPULATION (millions)			
Country	1950	2010	2050 (projected)
India	370	1200	1700
China	550	1300	1300
Nigeria	37	158	390
Indonesia	75	240	293
Ethiopia	18	83	145

Figure 13b

Explain the consequences of high rates of population growth for the quality of life within a country.

(6)

High rates of population growth can have many bad effects on quality of life within a country. It can lead to overcrowding of cities, leading to the growth of shanty settlements, as examples include cities like Dhaka. With more people comes less jobs, as more people are competing for one job. This can lead to increased poverty in a country, as well as encouraging the poverty cycle to develop. More people will put more demand on the services of a country, and quickly ^{services like} healthcare will be unable to cope with the strain, and this may lead to a low life expectancy. However, at first, rapid population growth can provide some benefits to a country, as shown in China before the 1950s. Its rapid growth fuelled its fast growing economy, and this brought prosperity to many.



ResultsPlus
Examiner Comments

This is a good answer which was awarded Level 3 (6 marks). Its great strength is its balance between positive and negative impacts. Impacts are realistic and explained. The geographical content is good and the constant relating them to quality of life is credit-worthy. A good Level 3 example.



ResultsPlus
Examiner Tip

Answers should read as a “nice” piece of geography!

Question 13 (d)

It is quite incredible how many candidates used China as their named country and produced accounts of the one-child policy. This case study was generally well used and many candidates achieved decent marks because a general sense that the policy had managed the Chinese population over a 40 year time period was conveyed. Rewards, sanctions and policy modifications were evident in many scripts.

(d) Discuss how population change is being managed in **one** named country.

(9)

Name of country: China

In 1979, the 'one-child policy' ~~has~~ was set up because of China's rapidly increasing population which had led to great suffering (e.g. food shortages). This policy strongly encouraged ~~to~~ couples to only have one child. They did this by giving rewards to couples who kept to the limit. For example, couples were given cash bonuses, longer maternity leaves, better housing, and free education for the child. However couples who had more than one child weren't given these rewards, they were fined part of their income, they were sterilised and ~~given~~ forced abortions. In 2001, the policy was softened. Couples who lived in rural areas were allowed to have a second child if: the first ^{child} was a girl, the first child had a physical disability or if one or both of the parents had a physical disability. This was because boys ~~were~~ ^{are} more fit to work ~~the~~ in the farmland and are stronger. Overall, this policy was a success. ~~The but~~ Between 1979-2008: the birth rate fell from 24 per 1000 to 13 per 1000, ~~the~~ and the fertility rate fell from 16 to 0.6. However, the population ^{grew} from 830 million to 1320 million.

(Total for Question 13 = 30 marks)

TOTAL FOR SECTION D = 30 MARKS



ResultsPlus
Examiner Comments

This is an accurate and detailed Level 3 (9 marks) response. It gives a population chronology for China starting with overpopulation in the 1970's. Rewards/sanctions are explained. Evaluation of the policy is a key feature eg policy changes as a result of population imbalance concerns; overall success in slowing down population growth.



ResultsPlus
Examiner Tip

Know your case studies ! It can lead to 9 marks.

(d) Discuss how population change is being managed in **one** named country.

(9)

Name of country: China

One child policy: China only allowed its ~~pop~~ population to have one child between two parents. The advantages of this ~~were~~ were that it dramatically ~~st~~ stopped the increasing population. ~~and~~ ~~the~~ ~~dis~~ ~~adv~~ ~~ant~~ ~~ag~~ ~~e~~ ~~s~~ ~~w~~ ~~er~~ ~~e~~ ~~s~~ The disadvantages were that there were too many persons for the labour force. People would secretly kill their child if it was a girl because boys made more money which was promoting sexism and causing there to be too many ~~boys~~ men and not enough women.



ResultsPlus
Examiner Comments

This response outlines China's one-child policy. It adopts an advantage-disadvantage approach for which the content is valid. It is too restricted in range to go beyond the bottom of Level 2 (4 marks).



ResultsPlus
Examiner Tip

You need to know your case studies in detail; this is not detailed.

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



Llywodraeth Cynulliad Cymru
Welsh Assembly Government



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