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# Examiners' Report
# January 2012

# GCSE Geography 5GA1H 01

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# Introduction

With just over 1600 entries the January entry is less predictable and rather more polarised than its much larger summer equivalent. With significant number of students resitting and some candidates entering early, levels of maturity vary widely. It isn't surprising, therefore, that the standard deviation is quite high at 7.6 around a mean of 34 reflecting a fair sprinkling of outstanding students and some who clearly were not at all prepared for this paper.

The map skills section was well handled by the vast majority although skills such as describing patterns and field sketching are not as well honed as reading and interpreting OS maps. For example 40% failed to get the second mark on 2 (a) (i). Similarly the important sections of the specification on GIS and research do need attention. 2 (a) (iii), 2 (b) (i) and 2 (b) (ii) were patchily answered with mistakes being made at all levels of ability.

On the Challenges for the Planet section the most obvious obstacle to better performance was not so much knowledge but how to use that knowledge effectively. The importance of extending answers to add to a basic point is critical and the statistics show far too many failing to do this. Stronger students do it by developing examples or adding detail. Once again it matters a great deal that students understand the key terms on the specification and interpret questions correctly. One obvious example was the final question on the paper, 4 (b). Here far too many students largely ignored the last three words of the question including material that by no stretch of the imagination could be applied to the 'workplace'.

## Question 1 (a) (D)

Basic mapwork skills were strongly demonstrated with A-C grade candidates generally finding the right answer. The greatest difficulty was with naming the settlement which too often became the settlement close to which the photograph was taken rather than Strete

## Question 1 (a) (E)

This question did cause some problems for students who failed to note from where the photograph had been taken.

## Question 1 (a) (F)

This was correctly answered by most students.

## Question 1 (b)

This proved much more testing for weaker candidates who struggled with both of the river related elements although doing better on land use.

(b) Complete the table to provide information about two rivers on the OS map extract.

(4)

| | River flowing into Slapton Ley | River flowing into Lannacombe Bay |
|---|---|---|
| **The mouth of the river** | 8244 | 8037 |
| **The source of the river** | 7847 | 83978 |
| **Vegetation along the banks of the river** | highland | Grassland |
| **Name of a settlement close to the river** | Colehanger | South allington |

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**Examiner Comments**

This type of response was not uncommon even from better students. The candidate inverts the reference for the source and cannot be awarded a mark for that aspect.Highland is not a vegetation type so no mark.The other two responses are correct.

## *Question 1 (c)*

The modal mark here was 3/3 suggesting a strong performance across all levels of ability. However a substantial minority simply omitted the question altogether leading to a relatively low mean mark. It is possible that those who refused to 'have a go' saw the challenge as greater than it actually was. Of the three required elements, the most frequent omission was 'direction'.

(c) Study the Ordnance Survey (OS) map extract.

A family who are staying at Torcross (8242) wish to drive to Salcombe (7338).

Plan their route using only settlement names, road numbers and directions.

You may use a sketch map in your answer.

(3)

Take the A379 Southward to a church with a spire, then continue along that road until you reach Stokenham, then continue on to Chillington, then if you continue you will pass Millpool and then Straight through East and West Charleton and you will cross a bridge just after. Go Straight through Kingsbridge and past West Alvington. Head down the A381 in a Southerly direction. Reach Malborough and continue east till you reach Salcombe.

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**Examiner Comments**

A slightly odd start with route to church mistaken, but the candidate recovers with directions, place and roads and is awarded three marks.

## *Question 1 (d)*

This question produced a  wide level of performance with almost equal numbers of students on every possible mark. Once again a substantial minority simply didn't complete the task judging their sketching skills as inadequate or perceiving that time issues might intrude. Of the four required elements the car park proved the easiest for most whilst the shoreline the most difficult. Unfortunately many confused the PH at Torcross with the PC at Slapton Sands!

(d) Study the OS map extract and Figure 1b (photograph) of Slapton Ley in the Resource Booklet.

Photograph 1b was taken in grid square 8241.

Figure 1c is an incomplete sketch of the photograph.

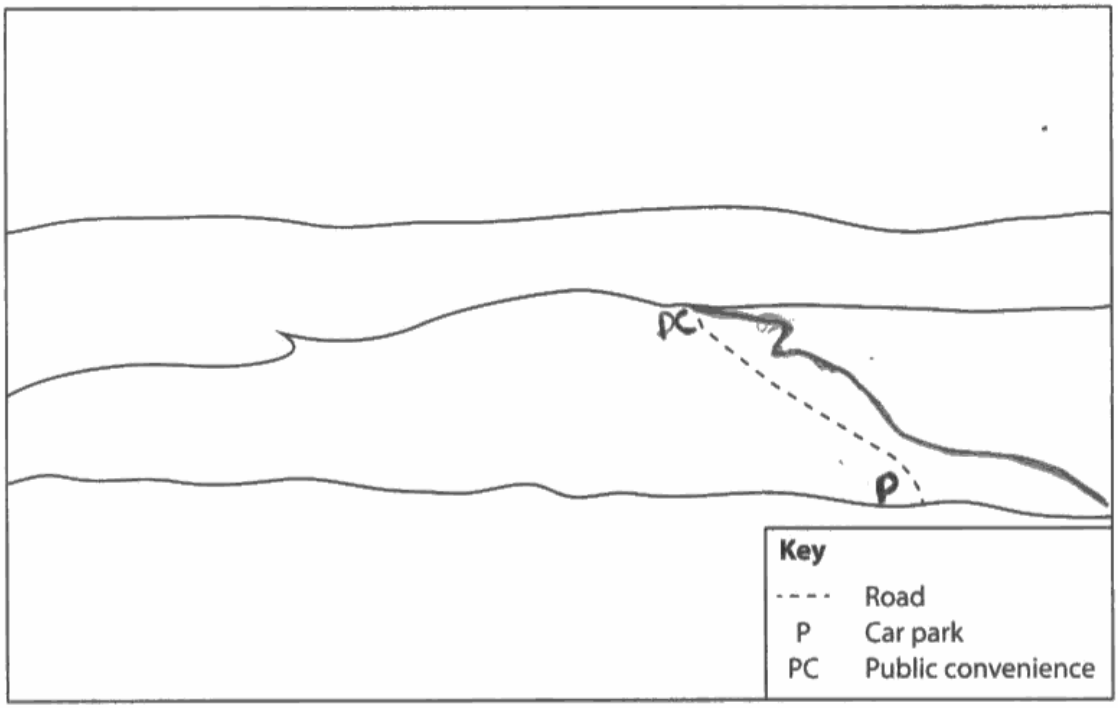


**Figure 1c**

Complete the sketch by adding the following features:

(4)

- the outline of Slapton Ley
- the bar (beach).

Using the key provided, label the following features in the correct positions on the sketch:

- the car park at Torcross
- the public convenience at Slapton Sands.

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**Examiner Comments**

P & PC are correct; the wiggly line (presumably the outline of Slapton Ley) is wrong and if beach was intended it should not be wiggly. The response was awarded two marks.

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**Examiner Tip**

Don't spend too long on these questions but don't ignore them either. Even candidates with very poor sketching skills should achieve at least one mark.

## *Question 2 (a) (i)*

As with other cartographical tasks some simply chose not to offer anything here. Those that did, frequently struggled much more with Frogmore and Sherford taking a distinctly impressionist approach to map drawing accuracy. In some cases this may have reflected inadequate equipment. Certainly a lack of a ruler was evident in many! Students needed to produce a result that was close enough to the key to be readable and not easily confused with other categories or, as in some cases, involving the invention of wholly new categories.

**2** (a) Study Figure 2.

It shows the population densities of some parishes in South Devon.

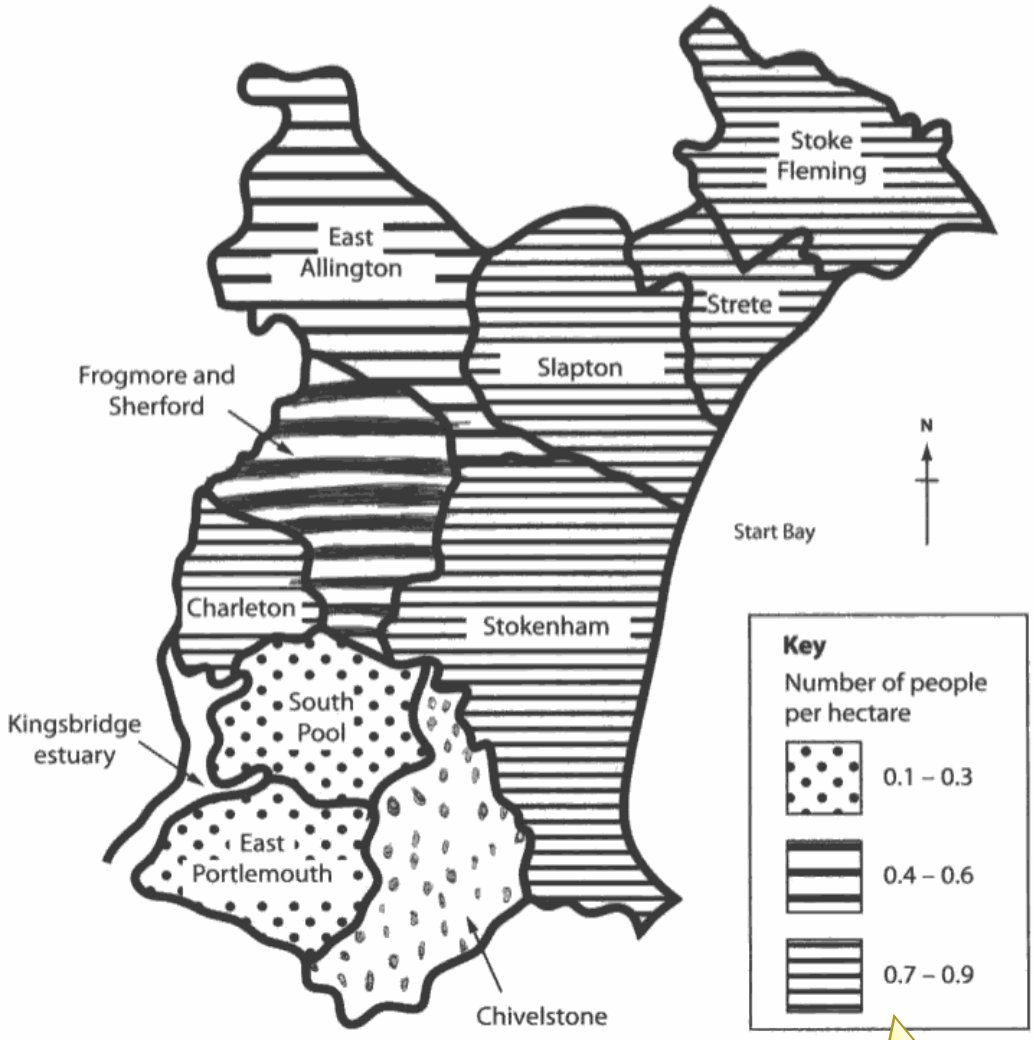


**Figure 2**

(i) Complete Figure 2.

Use the data in the table below.

| Parish | Population density (number of people per hectare) |
|---|---|
| Frogmore and Sherford | 0.4 |
| Chivelstone | 0.2 |

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**Examiner Comments**

This response meets the criteria. The lines a little thick for F and S but within tolerances. See mark scheme.

(ii) Describe the pattern of population density shown on Figure 2.

Use population density data in your answer.

(4)

The east side of south devon is alot more populated with stoke fleming, strete, slapton and stokenham all have densities of 0.7 - 0.9 people per hectare. The south is the least populated with only 0.1 - 0.3 people per hectare, charleston, frogmore and sherford, and east allington in the north east all have 0.4 - 0.6 people per heetare.

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**Examiner Comments**

This candidate uses clumsy language - 'a lot more populated' - but recognises two areas clearly with some data to support.

## *Question 2 (a) (iii)*

It is important that students are familiar with strengths and weaknesses of the various map and graphical techniques that they acquire. Many students found this question a challenge, especially when searching for a weakness of choropleths. Most resorted to a 'it doesn't show something else' approach rather than hunting down a weakness inherent in this type of mapping. Advantages were more evident although, again, too many clearly had little idea as to why showing data in this way is useful.

(iii) Figure 2 is a choropleth map.

State **one** advantage and **one** disadvantage of using a choropleth map to display data.

**(2)**

Advantage

Can see distribution of people.

Disadvantage

Cannot see settlements, contour lines, land relief etc.

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**Examiner Comments**

No comment has been made about clarity or comparison just a description of what the map is designed to do. The disadvantage offered would be allowable if a comparison had been made with an alternative such as GIS.The response cannot be awarded any marks.

## Question 2 (b) (i)

Both this question and the 'supplementary' that followed it discriminated effectively. Stronger candidates clearly knew what they were talking about and could define GIS effectively both through example (usually Google Earth or Sat Nav systems) and the central role of electronic mapping. Others reinterpreted the question as "name an example of GIS" and scored only one mark as a result.

(b) Geographical Information Systems (GIS) could be used to display the population data in Figure 2.

(i) What is meant by the term Geographical Information Systems (GIS)?

(2)

Electronic maps with multiple choice for things such as traffic or servies

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**Examiner Comments**

2 marks were awarded for 'electronic' plus the concept of flexibility of use - 'multiple choice'.

## Question 2 (b) (ii)

The focus in this question is the final five words '..make the map more useful'. Too many students suggested information that would make the map more cluttered but not, given its function of showing population densities, more useful.

(ii) The population densities for some South Devon parishes is shown on Figure 2.

State **one** other piece of information that could be added using GIS to make the map more useful.

(1)

What public attractions or services were in that area, ~~to~~ ~~one~~ which could be useful as it'd ~~s~~ tell us why that area has a higher or lower population density. Such as a picnic site or information centre.

**(Total for Question 2 = 11 marks)**

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**Examiner Comments**

The chosen examples are marginal - e.g. "picnic site" is poor but the basic idea of public attractions / services is creditable, and scores 1 mark.

## *Question 3 (a) (i)*

This was another question that discriminated effectively in that it clearly sorted out those who had a good grasp of natural processes from those who did not. The least effective choice of 'factor' was probably solar output for, although popular, it was widely misunderstood. Many candidates have the impression that solar flares are a consequence of sunspots and that these flares embrace the earth in a sort of warm embrace leading to climate warming. 'Tectonic activity' was the least popular suggesting both its relative complexity or, for some, a confusion between the disposition of continents and volcanic activity; this was a frequent confusion at the lower end of the ability spectrum. By far the strongest answers were offered with respect to 'volcanic activity' although, even here, the role of sulphuric acid was often confused.

**SECTION B – CHALLENGES FOR THE PLANET**

**Answer ALL questions in this section**

**3** (a) Study Figure 3.

It shows some of the factors that have caused climate change in the last 10,000 years.

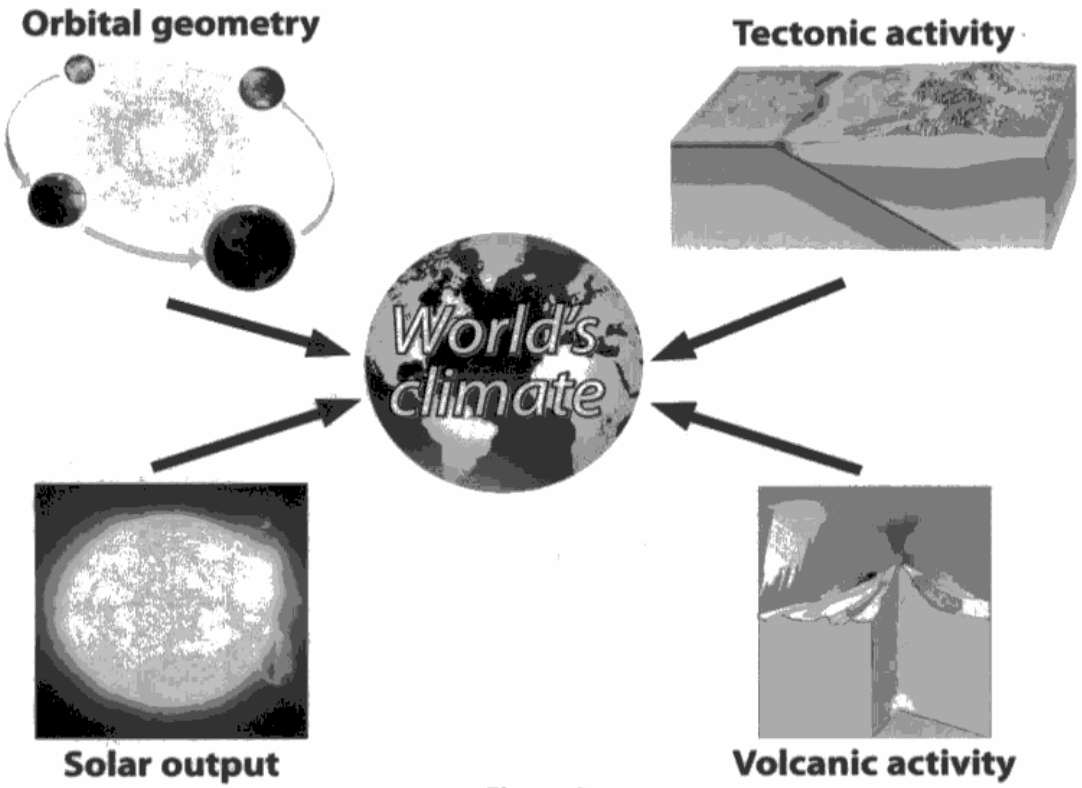


**Figure 3**

(i) Choose **two** of the factors shown on Figure 3.

Outline how each factor causes climate change.

**(4)**

1. Name of factor Volcanic activity

When volcanoes erupt ash is shot into the atmosphere and covers the earth like a blanket. This means that gases cant escape causing a green house effect. Also Heat cant get through making it cooler.

2. Name of factor ~~Orb~~ orbital geometry

Orbital geometry is when the earth tilts on its axis making it closer to the sun this increases temperatures. Also when the earth orbits the sun it is either elliptical or circular which also effects the climate making it hotter or colder

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**Examiner Comments**

Two clearly made points with supporting details for both.

## *Question 3 (a) (ii)*

For weaker candidates this presented far less of a challenge than its predecessor. Almost all students could offer some response about anthropogenic climate change. Methane was a popular choice, apparently fixed in the teenage memory by the contribution of cows and ruminants. The role of greenhouse gases in intercepting outgoing radiation is not well understood and although this didn't inhibit students in terms of their marks it would be helpful to get this right.

(ii) There are a number of factors that are recent causes of climate change.

Choose **either**

A. the burning of fossil fuels

**OR**

B. the increase of methane in the atmosphere.

Explain how your chosen factor causes climate change.

(4)

Chosen factor B

the increase of methane causes climate change because Methane traps the heat from the sun and methane comes from cows poos and gas and as ~~the~~ one there is ~~a~~ more demand for meat more cows are being reproduced and more cows means more methane, and the more methane there is the more it traps the heat of the sun and keeps it in our atmosphere.

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**Examiner Comments**

The basic idea is here but it is narrowly based - more cows, more methane but a little repetitive. Another source would be useful here.

## *Question 3 (b)*

This question was interpreted in three ways. For some it was clearly a question about global responses and many had an excellent knowledge of the history of climate change form Kyoto onwards. Others took it to be a question about how we as individuals could respond and thus went down the route of exploring green consumerism and related topics. Yet another group saw the response in a systemic sense describing the problems of coral reefs or other ecosystems in adjusting, or more accurately not adjusting, to rising temperatures. This wide range of possibilities led to high scores for most candidates.

(b) Describe **one** response to climate change on a global scale.

(3)

~~Legislature~~ Nuclear emmisions have a big effect on global change because of the $CO_2$ (Carbon dioxide) which is being produced. We respond to this by creating solar power stations or wind turbines to create energy to power things.

**ResultsPlus**
**Examiner Comments**

Obvious mistake over nuclear but picks up a mark for creation of solar power stations (1 mark).

## *Question 4 (a) (i)*

The key to success on this question was to take the information offered in the resource and make necessary links between the type of extraction described and the impact on people and the environment – this involved adding something about the process involved to get an 'explanation' as required. Most students found it relatively easy to do this although some chose poorly, adding little or nothing. A few introduced their own case-study material, often very effectively.

**4** (a) Study Figure 4.

It shows some effects of resource extraction in tropical rainforest areas.

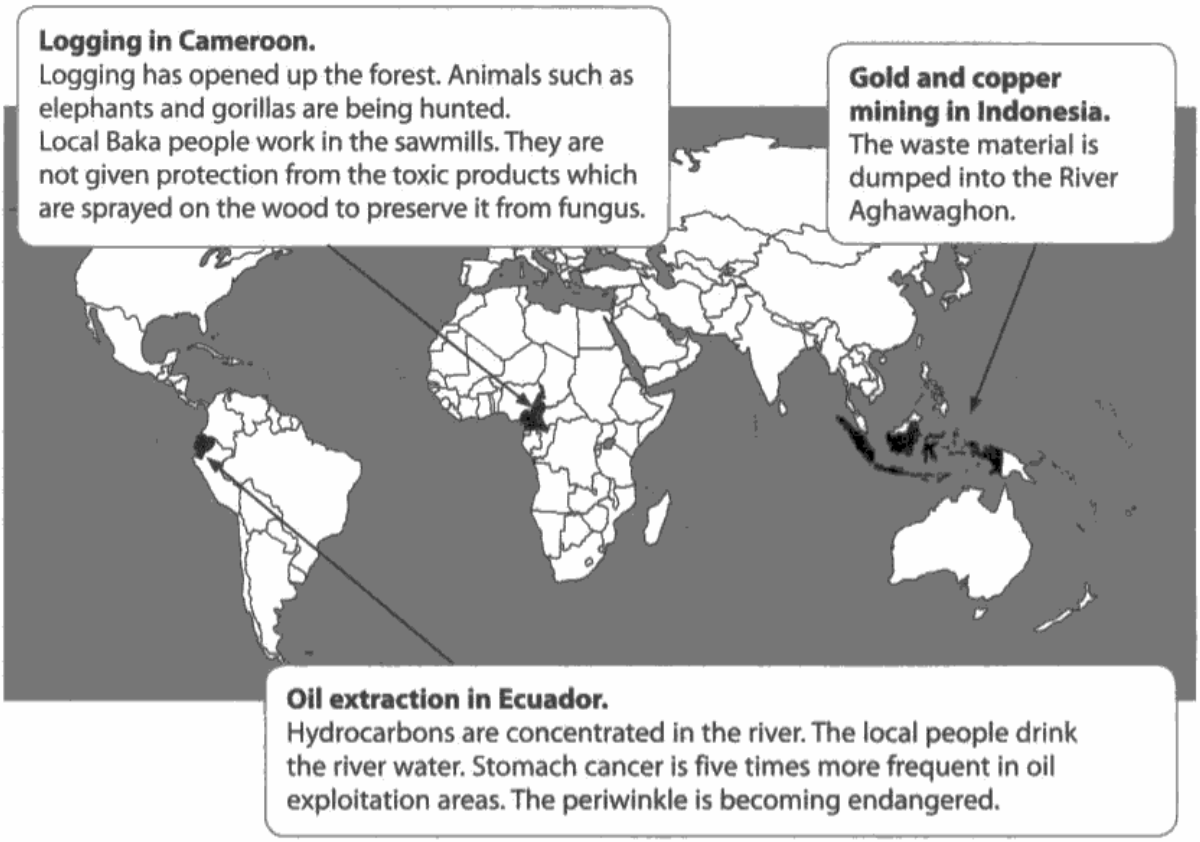


**Figure 4**

(i) Explain **two** effects of resource extraction in tropical rainforest areas.

One effect should be on the environment and the other on the local people.

Use evidence from Figure 4 in your answer.

**(4)**

Environment

Resource extraction in tropical rainforests can cause many problems. One of these is that animals and plants may become endangered or extinct because of this. The resources being extracted (eg oil) could pollute the water which the animal/plant is drinking to live, and cause a lot of damage

Local people

if the local people drink the water, eg in Ecuador, drink the water they could become very ill. Hydrocarbons are concentrated in the river, and stomach cancer is 5 times more frequent in oil exploitation areas.

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**Examiner Comments**

Environment: One mark for resources being extracted. i.e. oil and pollution. Second mark for impact on animals and plants. (2 marks)Local Population: 1 mark for locals drinking the water; second mark for illness as a consequence. The candidate also adds details of cancer rates. (Total marks 4)

## *Question 4 (a) (ii)*

This question discriminated well. The modal mark was 4/4 but the mean just 2.4/4. The keyword and focus is obviously manage(ment) and too many of the weaker answers simply left this out, writing in very general terms about schemes to preserve rainforest(s) . Some of these also omitted much reference to resource extraction. The best answers often offered two well learnt case-studies.

(ii) Explain how resource extraction from tropical rainforest areas is being managed.

Use examples in your answer.

(4)

This is being managed in the tropical rainforest areas because they are trying to put chemicals in the water which will stop stomach cancer. This is so people can drink river water if needed. Also the wasted materials are dumped further out to sea therefor this will be less of a problem.

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**Examiner Comments**

General comment of management ' putting chemicals into water' is worth one mark. Impact 'preventing cancers and allowing water to be drunk' is second mark. Remainder is too vague for any credit. (Total mark 2)

## *Question 4 (b)*

There is a clearly written section of the specification that is devoted to how companies change their organisational structures and production processes to reduce waste in their own activities, in other words in their work places. The case studies that candidates had at their disposal sometimes served well here – Asda, M and S, Interface carpets but others were less suite (e.g. Nokia) because the impact was on consumer behaviour is hardly in the workplace. The smartest candidates showed good awareness in making some of their case study material fit the title whilst others weren't able to do so. There were many level 3 responses and some of these showed a very sophisticated understanding of sustainability.

*(b) Explain how large organisations are becoming more sustainable in the workplace.

Use examples in your answer.

(6)

ASDA are becoming more sustainable in their work place, they are using recycled materials in order to reduce their packaging for ready made meals. As well as this they are fitting Energy Saving light bulbs to 75 % of their stores across the UK. The recycling of materials will help bring their carbon food print down an help improve the company nation average. The national average is aimed to be brought down by 35 % over a 5 year period.

Another company that are sustaining there good are NOKIA, the plan carbon are recycle all old phone in order to reproduce new models. Their aim is to bring in enough recycle material, by so that by 2014 they will be able to produce 15 % of their national stock with recycled and old bits of phone. Just like ASDA their are looking to bring their global emission down by 14 % over a 3 year period.

As well as this ASDA have sign up with Greenpeace, a national environmental charity, in order to help donate money to plan like Madagascar or Borneo to assist with oil extraction in the area.

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**Examiner Comments**

Good case study on ASDA with several examples. Strong links to carbon footprint. Nokia focus is on production methods with detail of impact on global emission. The last part on Greenpeace is marginal but workplace focus is strong, examples are strong and focus on sustainability is clear. The response was awarded 6 marks, the top of Level 3.

## Paper Summary

Attention is drawn to the following key pointers to continuing improvement:

Candidates' performance will improve if they show a better understanding of key terms contained in the specification. It is certainly worthwhile spending a little time ensuring that these are understood and, most importantly of all, that the idea of sustainability and the challenges of defining this in a meaningful way are addressed in the classroom.

Candidates should be given opportunities to practise extending their answers when asked to describe or explain by adding detail or developing their examples.

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