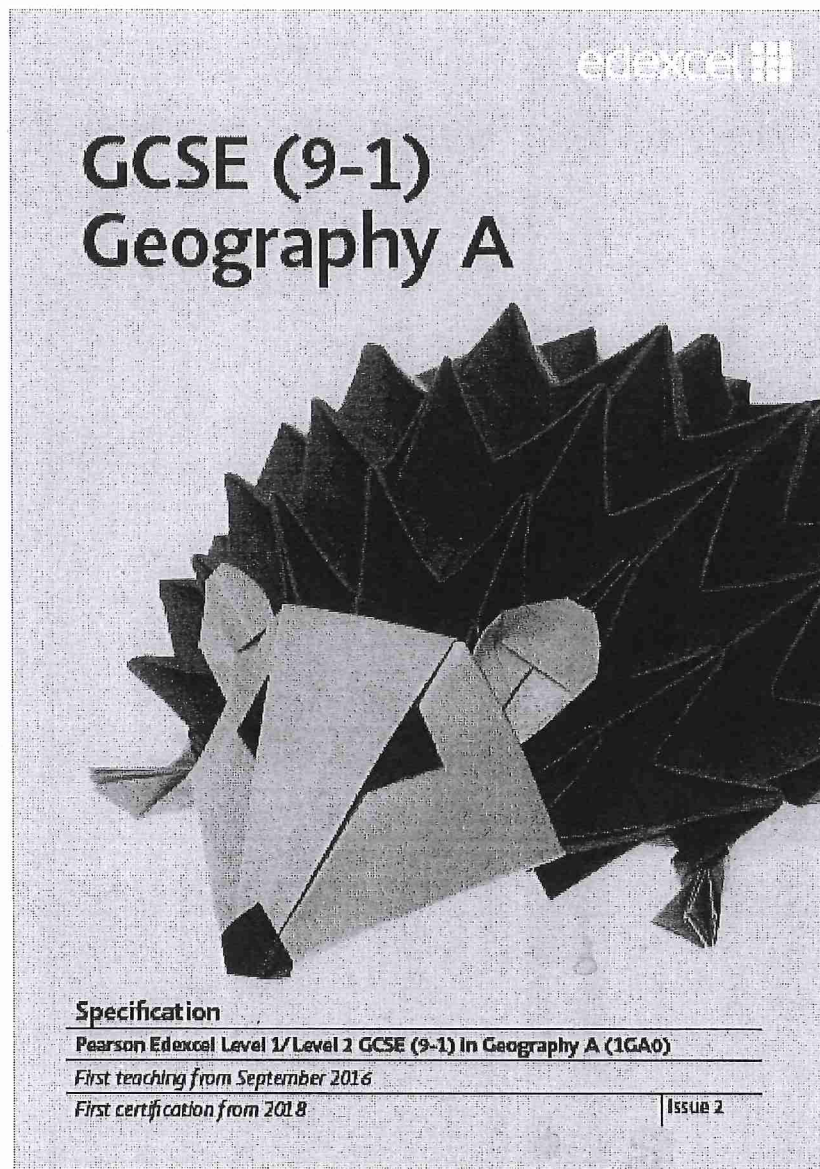


Geography GCSE

Edexcel Specification A



PART A P1 — 83

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Command Words and their marks

GCSE						
Marks	1	2	3	4	8	12
Identify/State/Name	●					
Define	●					
Calculate	●	●				
Label	●	●				
Draw		●	●			
Compare			●			
Describe		●	●			
Explain		●	●	●		
Suggest		●	●	●		
Examine					A	
Assess					●	
Evaluate					●	
Discuss						A
Justify						B

Command word	Definition
Identify/State/Name	Recall or select one or more pieces of information.
Define	State the meaning of a term.
Calculate	Produce a numerical answer, showing relevant working.
Draw/plot	Create a graphical representation of geographical information.
Label	Add a label/labels to a given resource, graphic or image.
Describe	Give an account of the main characteristics of something or the steps in a process. Statements in the response should be developed but do not need to include a justification or reason.
Compare	Find the similarities and differences of two elements given in a question. Each response must relate to both elements, and must include a statement of their similarity/difference.
Explain	Provide a reasoned explanation of how or why something occurs. An explanation requires a justification/exemplification of a point. Some questions will require the use of annotated diagrams to support explanation.
Suggest	Apply understanding to provide a reasoned explanation of how or why something may occur. A suggested explanation requires a justification/exemplification of a point.
Examine	Break something down into individual components/processes and say how each one individually contributes to the question's theme/topic and how the components/processes work together and interrelate.
Assess	Use evidence to determine the relative significance of something. Give consideration to all factors and identify which are the most important.
Discuss	Explore the strengths and weaknesses of different sides of an issue/question. Investigate the issue by reasoning or argument.
Evaluate	Measure the value or success of something and ultimately provide a substantiated judgement/conclusion. Review information and then bring it together to form a conclusion, drawing on evidence such as strengths, weaknesses, alternatives and relevant data.

Thinking steps for My Geography papers – TOP TIPS!

Use this alongside a past paper – copy these out onto cue cards, adapt to suit your style..

Try – follow the steps and answer a question, look at the mark scheme can you improve with a green pen, repeat! (overtime are you starting to add less green pen?)

Describe the... or outline the...

1. BUG the question
2. What does the fig show? Look at the key and title
3. What I find?
4. Trend, specifics, anomalies (TEA/PQE)?
5. Similarities differences?
6. Start with **According to the fig..** (or figure__ shows that)
7. Glance back – it is normally worth 3 (referred to the figure? Specifics?)

Using figure.. A and B and own knowledge.. to examine...

1. Bug the question
2. What does the fig show? (look at key and title)
3. Can I see the words from the question in the fig e.g *hard and soft engineering*
4. Can I see something from my cue card/revision in the resource?
5. Is there an obvious more easy part to the figure to use?
6. Glance back – do I have any other examples I could add?
7. Start with.. according to the fig. or fig __ shows that..
8. **Check** - Own knowledge and figure?

Examine whether....

1. BUG the question
2. What do I know about the geography in the question?
3. What information can I take from the resources
4. Examine means to take each point and begin to say how each one individually contributes
5. What is my most important point/reason for showing what I think

Using a case study justify.. why...decision was taken...

1. BUG the question
2. What do I know about the geography in the question?
3. What must I justify?
4. I need to write down all the reasons I can think of. Is it straight forward or are there other options?
5. What is my most important point/reason for justifying?
6. I must develop so what point next?
7. Remember to back up with evidence
8. *The most important reason why.. In addition to this... another reason why*
9. *However.. there are some limitations to my choice.. which are ..*
10. *Despite this, in conclusion..*

Compare the...

1. BUG the question
2. What does the fig show? (look at the key and title)
3. Describe it (TEA/PQE)
4. Pick out the similarities
5. Pick out the differences
6. What are the key points?
7. *In contrast, whereas, however, on the other hand*

Explain how...

(sequenced, logical, developed, eggs if possible)

1. BUG the question
2. What do I know?
3. What reasons can I come up with? Is there an easy more obvious point?
4. **Sequence and logical** – *to begin with... this means that, as a result of this... overtime... eventually... finally...*

Assess whether or evaluate...

1. BUG the question
2. What does the command word want me to do? (What does evaluate/assess mean?)
3. What do I know about subject?...
4. Can I see two sides? (mostly you need to discuss both sides)
5. Do I need to agree or disagree? Or make a judgement? **Then what is my decision?**
6. What are the key points I want to make?
7. How am I going to develop this?
8. Link? Can I now link this to the resource/fig or my knowledge of a case study
9. Leave time to conclude..
10. My first sentence will begin with..
11. I will need to use connectives such as...

Identify, State,

Give, pick out,

Examiner

Marked

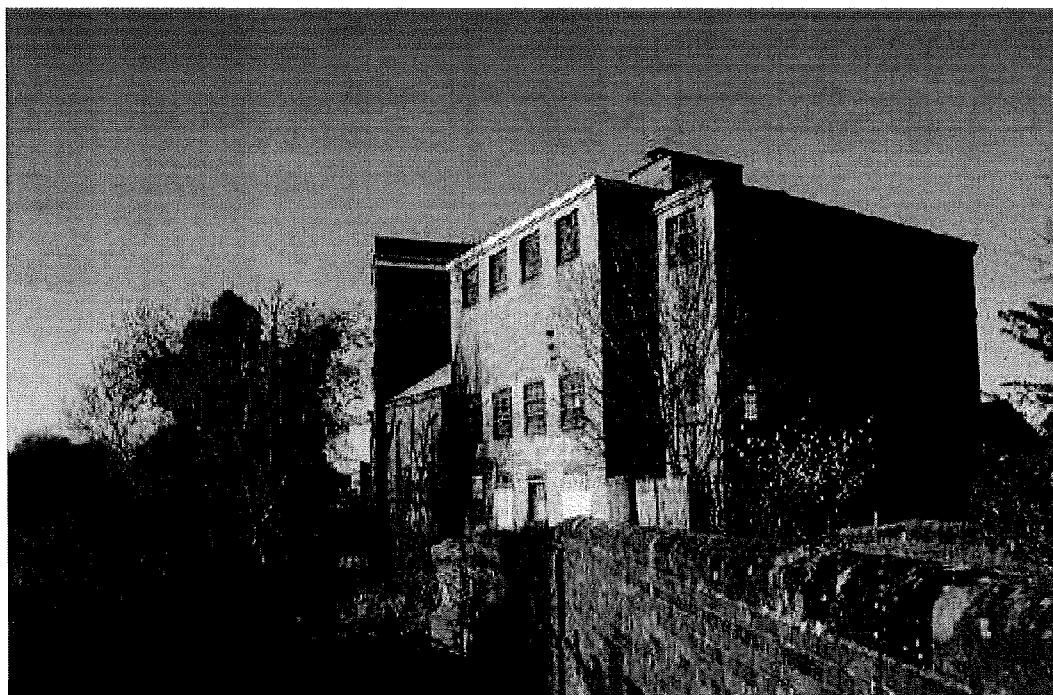
Responses

Name

Short Open Response Questions

Example 1 – GCSE A, Paper 2, Question 1 c (i) & (iv)

- 1 The causes and effects of urbanisation can vary between countries at different levels of development.
- (c) Study Figure 1b in the Resource Booklet.



(Source: Image31454230 /kodachrome25/ Istock)

Figure 1b

Evidence for deindustrialisation

- (i) Identify two pieces of evidence that show this area has experienced deindustrialisation. (2)
- (iv) Using just the photograph in Figure 1b to investigate deindustrialisation would be limiting.
- Give **three** changes that could be made to this investigation that would help prove that other areas have been affected by deindustrialisation. (3)

Mark schemes

Question number	Answer	Mark
1(c)(i)	<p>Award 1 mark for each of the following, up to a maximum of 2 marks:</p> <p>Overgrown vegetation (1)</p> <p>Broken windows/boarded up (1)</p> <p>Deserted/no industrial activity (1)</p> <p>Derelict (1)</p> <p>Neglected (1)</p> <p>Accept any other appropriate response</p>	(2)

Question number	Answer	Mark
1(c)(iv)	<p>Award 1 mark for each change, up to a maximum 3 marks:</p> <p>Using land use maps or satellite images (1)</p> <p>Using graphs of employment sector/unemployment (1)</p> <p>Using GIS (1)</p> <p>Accept any other appropriate response</p>	(3)

Student answers to part (i)

- (i) Identify two pieces of evidence that show this area has experienced deindustrialisation.

(2)

Evidence 1

In Figure 1b, the building has overgrown vegetation
and smashed windows

Evidence 2

lost jobs

Examiner's comments

This response is awarded 2 marks.

The candidate has actually been awarded two marks for the sentence included in the 'Evidence 1' section, "...the building has overgrown vegetation (1) and smashed windows (1)".

Whilst it is expected that the candidate would write one valid point in each of the evidence sections, this 'two-in-one' approach is acceptable.

- (i) Identify two pieces of evidence that show this area has experienced deindustrialisation.

(2)

Evidence 1

The area is full of overgrown vegetation

Evidence 2

The building is derelict

Examiner's comments

This response is awarded 2 marks.

In the Evidence 1 section, the candidate has written, "... full of overgrown vegetation" (1) and in the Evidence 2 section, "...building is derelict" (1).

- (i) Identify two pieces of evidence that show this area has experienced deindustrialisation.

(2)

Evidence 1

There is overgrown vegetation around the building
~~the building is derelict~~

Evidence 2

This leads too unemployment which is people losing
their jobs due to factory or warehouses closing down.

Examiner's comments

This response is awarded 1 mark.

The candidate gets a mark for the first evidence box – overgrown vegetation (1) (but the crossed out text is not marked).

In the second evidence section, the candidate does provide a legitimate consequence of deindustrialisation, but as this is not clearly evident on the resource, does not gain credit.

Student answers to part (iv)

(iv) Using just the photograph in Figure 1b to investigate deindustrialisation would be limiting.

Give **three** changes that could be made to this investigation that would help prove that other areas have been affected by deindustrialisation.

(3)

A Change What could be made is use land-use maps so you can see which buildings are in use and which ones are not. As well as using services such as google earth to find out more about the places you could also use graphs of employment and unemployment to see which areas are employing people more.

Examiner's comments

This response is awarded 3 marks.

The command word is 'give' which means that one mark is awarded for each change – and no further development is required.

The candidate is awarded their first mark for, "use land-use maps" (1), but no further credit for the description about how these could be used. The second mark is awarded for the reference to Google Earth (an example of GIS) (1) and the third mark for, "... could also use graphs of employment and unemployment" (1).

Low level questions

These question will appear at the start of each section with the commands:

- State
- Identify
- Give
- Name

They will tend to one or two marks only and are a test of your knowledge.

If you are aiming to write approximately one mark per minute, these should take a lot less. You should aim to spend only 10-20 seconds on them.

You should see these as a chance to gain time as you should only need to tick a box or write one or two key terms. That gained time can be used when you are planning or writing your longer answers later in each section.

It is important that you complete all of them because the marks will add up over course of the 3 exams.

Finally, look carefully at each page, the questions can be hidden and it's easy to miss simple marks for example, you can be asked to fill in an area on a map.

SECTION A

The changing landscapes of the UK

Answer all parts of question 1. Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 UK landscapes are constantly being changed by different processes.

(a) (i) State **one** example of a sedimentary rock.

(1)

☐ A schist

☐ B slate

☐ C basalt

☐ D chalk

(ii) State **one** characteristic of a sedimentary rock.

(1)

(b) Identify the location of **one** area of granite landscape in the UK.

(1)

☐ A South Wales

☐ B South west England

☐ C East Anglia

☐ D South east England

(c) (i) Farming is one example of an activity that affects the landscape.

State **one** other example of a human activity that affects the landscape.

(1)

Paper 1 Mark scheme

Question number	Answer	Mark
1(a)(i)	D	(1)

Question number	Answer	Mark
1(a)(ii)	<p>Award 1 mark for one of the following, maximum 1 mark:</p> <p>Rocks formed in layers (1)</p> <p>Idea of compaction/cementation (1)</p> <p>Oldest rocks are at the bottom/youngest at the top (1)</p> <p>May contain fossils of plants and/or animals (1)</p> <p>Accept any other appropriate response</p>	(1)

Question number	Answer	Mark
1(b)	B	(1)

Question number	Answer	Mark
1(c)(i)	<p>Award 1 mark for one of the following, maximum 1 mark:</p> <p>Forestry (1)</p> <p>Urbanisation/settlement (1)</p> <p>Deforestation (1)</p> <p>Building of roads/rail (1)</p> <p>Reject farming/agriculture</p> <p>Accept any other appropriate response</p>	(1)

**Answer only two questions from Question 2 (Coastal landscapes and processes),
Question 3 (River landscapes and processes)
and Question 4 (Glaciated upland landscapes and processes).**

Question 2: Coastal landscapes and processes

If you answer Question 2 put a cross in the box ☐.

Coastal landscapes are constantly being changed by different processes.

2 (a) Study Figure 1 in the Resource Booklet.

(i) Identify **one** erosional landform shown in the coastal landscape on Figure 1.

(1)

(ii) State **one** type of biological weathering that might have an impact on this landscape.

(1)

(iii) Rip rap is an example of hard engineering.

Explain **one** way rip rap helps protect coastal landscapes.

(2)

Question number	Answer	Mark
2(a)(i)	<p>Award 1 mark for one of the following, maximum 1 mark:</p> <p>Stack (1)</p> <p>Cliff (1)</p> <p>Wave cut platform (1)</p> <p>Bay (1)</p> <p>Arch (1)</p> <p>Headland (1)</p> <p>Reject depositional features</p> <p>Accept any other appropriate response</p>	(1)

Question number	Answer	Mark
2(a)(ii)	<p>Award 1 mark for one of the following, maximum 1 mark:</p> <p>Root action is where roots grow into the ground (1)</p> <p>Chelation/influence of soil acid (1)</p> <p>Action of animals such rabbit burrowing (1)</p> <p>Reject erosional processes</p> <p>Accept any other appropriate response</p>	(1)

Question number	Answer	Mark
2(a)(iii)	<p>Award 1 mark for point about rip rap and a further one mark for how this protects coastal landscapes, up to a maximum of 2 marks:</p> <p>Large (manmade) boulders are placed along the cliff line (1) which protect the coast by acting as a sea wall (1)</p> <p>The gaps between the rocks allow water through (1), therefore slowly dissipating energy (1)</p> <p>Accept any other appropriate response</p>	(2)

PLEASE DO NOT WRITE IN THIS AREA

SECTION B

Weather hazards and climate change

5 The UK's climate experiences significant variations.

(a) (i) State **one** natural cause of climate change in the past.

(1)

(ii) State **two** sources of evidence for natural climate change in the past.

(2)

1

2

PLEASE DO NOT WRITE IN THIS AREA

Question 3: River landscapes and processes

If you answer Question 3 put a cross in the box ☐.

River landscapes are constantly being changed by different processes.

3 (a) Study Figure 3 in the Resource Booklet.

(i) Identify **one** landform in the river landscape shown in Figure 3.

(1)

(ii) State **one** type of chemical weathering that might have an impact on this river landscape.

(1)

Question number	Answer	Mark
5(a)(i)	<p>Award 1 mark for one of the following, maximum 1 mark:</p> <p>Orbital changes/Milankovitch cycles (1)</p> <p>Solar variation/sunspot activity or cycles (1)</p> <p>Volcanic eruption (1)</p> <p>Reject human causes such as the EGE/global warming.</p> <p>Accept any other appropriate response.</p>	(1)

Question number	Answer	Mark
5(a)(ii)	<p>Award 1 mark for each correctly identified source of evidence, up to 2 marks:</p> <p>Ice cores (1)</p> <p>Pollen records (1)</p> <p>Tree rings (1)</p> <p>An example of a historical sources (e.g. painting) (1)</p> <p>Accept any other appropriate response</p>	(2)

Question number	Answer	Mark
3(a)(i)	<p>Award 1 mark for one of the following, maximum 1 mark:</p> <p>River cliff (1)</p> <p>Slip off slope/point bar (1)</p> <p>Meander (1)</p> <p>Flood plain (1)</p> <p>Accept any other appropriate response.</p>	(1)

Question number	Answer	Mark
3(a)(ii)	<p>Award 1 mark for one of the following, maximum 1 mark:</p> <p>Carbonation/acid rain (1)</p> <p>Dissolution/solution weathering (1)</p> <p>Accept any other appropriate response</p>	(1)

DO NOT WRITE IN THIS AREA

(d) (i) State **two** goods or services provided by tropical rainforests.

(2)

1

.....

2

.....

7 Biodiversity is influenced by the interrelationship and interaction of biotic and abiotic factors.

(a) Define the term 'abiotic'.

(1)

.....

.....

6 Extreme climate and weather conditions can create major hazards for people.

(a) Study Figure 8 in the Resource Booklet.

(i) Identify the location on the globe which has low pressure.

(1)

- ☐ A North Pole
- ☐ B 30° North
- ☐ C South Pole
- ☐ D 0° (the Equator)

(ii) Which of the following sources of geographical information would you select to investigate the weather conditions at location X?

(1)

- ☐ A average temperature graph
- ☐ B infrared satellite image
- ☐ C average rainfall graph
- ☐ D Saffir-Simpson magnitude data

DO NOT WRITE IN THIS AREA

DO NOT WRITE

Question number	Answer	Mark
7(d)(i)	<p>Award 1 mark for the following, up to a maximum of 2 marks:</p> <p>Foodstuffs or specific examples (1)</p> <p>Medicines or chemical/genetic material for medicines (1)</p> <p>Timber/wood (1)</p> <p>Recreation or other cultural value (1)</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
7(a)	<p>Abiotic refers to the non-living component of an ecosystem</p> <p>Reject living components.</p> <p>Accept any other appropriate response</p>	(1)

Question number	Answer	Mark
6(a)(i)	D	(1)

Question number	Answer	Mark
6(a)(ii)	B	(1)

SECTION C

Resource Management

Answer all parts of question 3. Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

3 The distribution and demand for natural resources varies around the world.

(a) Fish are a biotic resource. Name **two** other biotic resources.

(2)

1

2

(iv) State two components that form part of the Human Development Index (HDI).

(2)

1

2

Study Figure 2b in the Resource Booklet.

(b) The following statements describe different types of development project.

Identify the **two** statements which describe the type of project shown in Figure 2b.

(2)

- ☐ A The project relies on intermediate technology
- ☐ B Local people are responsible for designing the project
- ☐ C Large amounts of money are borrowed to pay for the project
- ☐ D The project has limited environmental impact
- ☐ E The project brings national prestige to the country

Question 3 – Resource management

Question number	Answer	Mark
3(a)	<p>Award 1 mark for each of the following, up to a maximum of 2 marks:</p> <p>humans (1)</p> <p>worms (1)</p> <p>dogs (1)</p> <p>cattle (1).</p> <p>Accept any other appropriate response</p>	(2)

Question number	Answer	Mark
2(a)(iv)	<p>Award 1 mark for one of the following up to a maximum of 2 marks:</p> <p>Income per capita/GNI per capita (1)</p> <p>Life expectancy (at birth) (1)</p> <p>Education/mean years of school and expected years of schooling (1)</p> <p>Accept any other appropriate response</p>	(2)

Question number	Answers	Mark
2(b)	<p>C</p> <p>E</p>	(2)

SECTION B

Global Development

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

2 The characteristics and reasons for development vary around the world.

(a) Study Figure 2a in the Resource Booklet.

(i) Define the term GDP (Gross Domestic Product)

(1)

Question 2 – Global development

Question number	Answer	Mark
2(a)(i)	Total wealth/income earned by a country in a year.	
	Accept any other appropriate response	(1)

(ii) Define the term deindustrialisation.

(1)

(iii) State one social impact of deindustrialisation.

(1)

(iv) Using just the photograph in Figure 1b to investigate deindustrialisation would be limiting.

Give **three** changes that could be made to this investigation that would help prove that other areas have been affected by deindustrialisation.

(3)

Analyse Figure 1c in the Resource Booklet.

(d) (i) Identify the urban area that received the most migrants from London.

(1)

- ☐ **A** Manchester
- ☐ **B** Newcastle
- ☐ **C** Norwich
- ☐ **D** Southend

(ii) State two possible impacts on London of the migration pattern shown in Figure 1c.

(2)

1

2

25

Net flow of people to London England and Wales, 2009 – 2012

Migration Flow out of London

8,450 – 5,000

4,999 – 1,000

999 – 0

Migration Flow into London

4,001 – 7,000

1,000 – 4,000

1 – 999

London



(Source: 'Is London a drain on other UK cities?', Sarah Marsh, George Arnett, © Guardian News & Media Ltd. 2014)

Figure 1c

Migration flow into and out of London 2009–2012

26

number		
1(c)(ii)	Loss of manufacturing sector jobs/businesses (1). Accept closure of factories. Accept any other appropriate response	(1)

Question number	Answer	Mark
1(c)(iii)	Award 1 mark for each of the following, maximum 1 mark: Unemployment (1) Lower family incomes (1) Loss of community cohesion (1) De-population (1) Accept any other appropriate response	(1)

Question number	Answer	Mark
1(c)(iv)	Award 1 mark for each change, up to a maximum 3 marks: Using land use maps or satellite images (1) Using graphs of employment sector/unemployment (1) Using GIS (1) Accept any other appropriate response	(3)

Question number	Answer	Mark
1(d)(i)	D	(1)

Question number	Answer	Mark
1(d)(ii)	Award 1 mark for each of the following, up to a maximum of 2 marks: Increased competition for jobs (1) Increased strain on services/schools/housing (1) Overcrowding (1) Changes the population structure of London (1) Reject impacts on rural areas or areas where the migrants have left (i.e. outside London). Accept any other appropriate response	(2)

27

DO NOT WRITE IN THIS AREA

SECTION A

Geographical Investigations – fieldwork

Answer only one question from Question 1: Investigating physical environments (rivers) and Question 2: Investigating physical environments (coasts).

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Chosen question number: **Question 1** ☐ **Question 2** ☐

Question 1: Investigating physical environments (rivers)

1 A group of students was collecting data along the length of a river as part of an investigation into changes in a river channel.

- (a) The students had planned to use a flow meter to measure the velocity of the river, but one of their chosen sites was too shallow.

State **one** way they could **adapt** their technique.

(1)

- (b) Give **one** piece of equipment, other than a flow meter, they would need to use to investigate river discharge.

(1)

Paper 3 Mark scheme

Question number	Answer	Mark
1(a)	Award 1 mark for one of the following, a maximum 1 mark: use a float/ping pong ball/cork/orange/stick (1) use a flow meter with a smaller impellor (1). Accept any other appropriate response.	(1)

Question number	Answer	Mark
1(b)	Tape measure/ruler/chain/stopwatch Accept any other appropriate response.	(1)

Maths Questions

Calculate

Plot

Examiner Marked Responses

Calculate questions

Example 1 – GCSE A, Paper 2, Question 2a (iii)

2 The characteristics and reasons for development vary around the world.

(a) Study Figure 2a in the Resource Booklet.

Country	Gross Domestic Product (GDP) in U.S. dollars (billions)	
	2000	2014
Austria	0.2	0.4
China	1.2	10.4
India	0.5	2.0
Japan	4.7	4.8
Netherlands	0.4	0.9
Spain	0.6	1.4
USA	10.3	17.4

Figure 2a

Changes in Gross Domestic Product (GDP) for selected countries, 2000–2014

(iii) Calculate the mean GDP for the countries on Figure 2a in 2014.

Answer to one decimal place.

Show your workings in the space below.

(2)

Mark scheme

Question number	Answer	Mark
2(a)(iii)	<p>Working to show:</p> <p>The correct addition of total GDP (\$billions), 37.3 (1)</p> <p>The division of this number by 7, the total number of countries, arriving at a mean of 5.3 – or a number that rounds to 5.3 – US\$ billion (1)</p> <p>Maximum of 1 mark if no working out is shown.</p>	(2)

Student answers to part (iii)

(iii) Calculate the mean GDP for the countries on Figure 2a in 2014.

Answer to one decimal place.

Show your workings in the space below.

(2)

0.4
10.4
2.0
4.8
0.9
1.4
17.4

37.5

$$37.3 \div 7 = 5.3285714286$$

5.3

US\$ billion

Examiner's comments

This response is awarded 2 marks.

The candidate is awarded the first mark for the correct addition of the total GDP (1), although there is no requirement to write out all of the data like this candidate has done.

The second mark is awarded for arriving at the correct answer, and being able to write this to one decimal place (1).

Maths Questions

You will be asked to do some maths questions. You will need to know about mean, median and modal averages, interquartile ranges, percentages, ratios and more.

The command words tend are:

- Plot
- Calculate

These are low scoring questions that are important to get as they should be simple and easy for you.

You take CALCULATOR into the exam with a pencil and ruler.

(b) Study Figure A below.

(i) Complete the line graph in Figure A using data from the table below.

(3)

Height above sea level (m)	Vegetation type (ecosystem)
0–900	Tropical Rainforest
900–1800	Temperate Forest

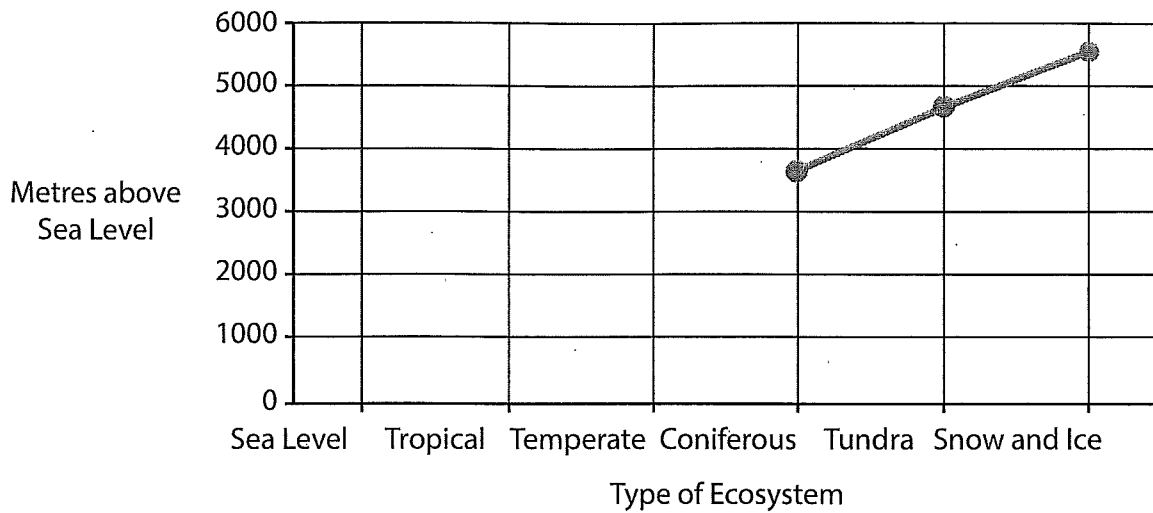
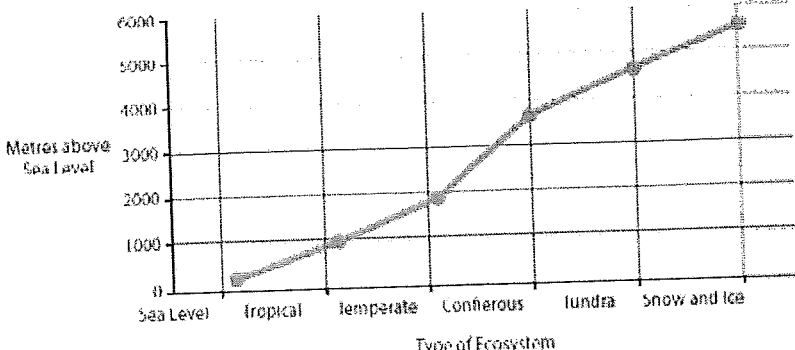


Figure A

Changes in large ecosystems up a mountain in South America

Question number	Answer	Mark														
7(b)(i)	<p>Award 1 mark for each correct plot (2 x 1) Award 1 mark for joining dots together (1)</p> <p>Changes in large ecosystems up a mountain in South America</p>  <table><thead><tr><th>Type of Ecosystem</th><th>Metres above Sea Level</th></tr></thead><tbody><tr><td>Sea Level</td><td>0</td></tr><tr><td>Tropical</td><td>500</td></tr><tr><td>Temperate</td><td>1000</td></tr><tr><td>Coniferous</td><td>2000</td></tr><tr><td>Tundra</td><td>4000</td></tr><tr><td>Snow and Ice</td><td>6000</td></tr></tbody></table>	Type of Ecosystem	Metres above Sea Level	Sea Level	0	Tropical	500	Temperate	1000	Coniferous	2000	Tundra	4000	Snow and Ice	6000	(3)
Type of Ecosystem	Metres above Sea Level															
Sea Level	0															
Tropical	500															
Temperate	1000															
Coniferous	2000															
Tundra	4000															
Snow and Ice	6000															

- (i) Plot the data for Cambodia and Mozambique given in the table below on Figure A.

(2)

Country	Life expectancy (years)	Percentage (%) of people with access to safe drinking water
Cambodia	70	30
Mozambique	50	57

- (ii) Draw a best fit line on Figure A.

(1)

- (iii) Give **one** reason for the relationship shown in Figure A.

(1)

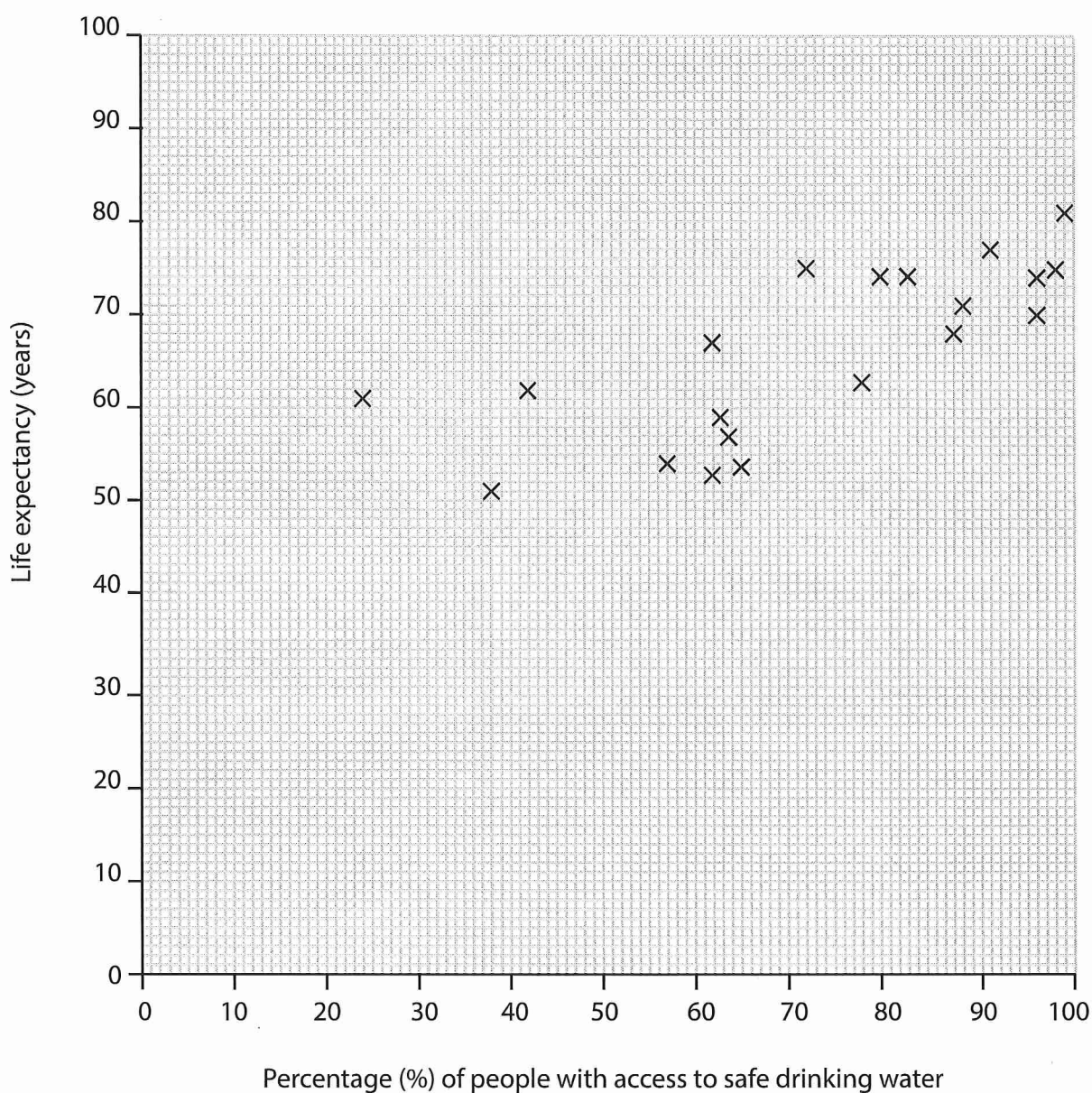
Question number	Answer	Mark
2(d)(i)	One mark for each correct plot.	(2)

Question number	Answer	Mark
2(d)(ii)	1 mark for an accurate best fit line which shows that life expectancy increases with increased access to safe drinking water.	(1)

Question number	Answer	Mark
2(d)(iii)	<p>Award 1 mark for a reason for the relationship shown in Figure A, maximum 1 mark.</p> <ul style="list-style-type: none"> • People drinking safe water do not get diseases and live longer (1). • Development projects such as building wells or irrigation have improved overall basic living standards (1). <p>Accept any other appropriate response.</p>	(1)

37

(d) Study Figure A below.



(Source: Nationmaster)

Figure A

Life expectancy and access to safe drinking water in selected countries

(b) Study Figure 3 in the Resource Booklet.

(i) Identify the percentage of stock that was overfished in 2011.

(1)

☐ A 28%

☐ B 58%

☐ C 78%

☐ D 98%

(ii) Calculate the difference between the percentage of total stock underfished between 1974 and 2011.

(1)

.....%

(iii) Suggest **one** reason for the trend in the percentage of stocks underfished shown in Figure 3.

(2)

(iv) Suggest **two** ways the trends shown in Figure 3 would impact on this environment.

(4)

1

2

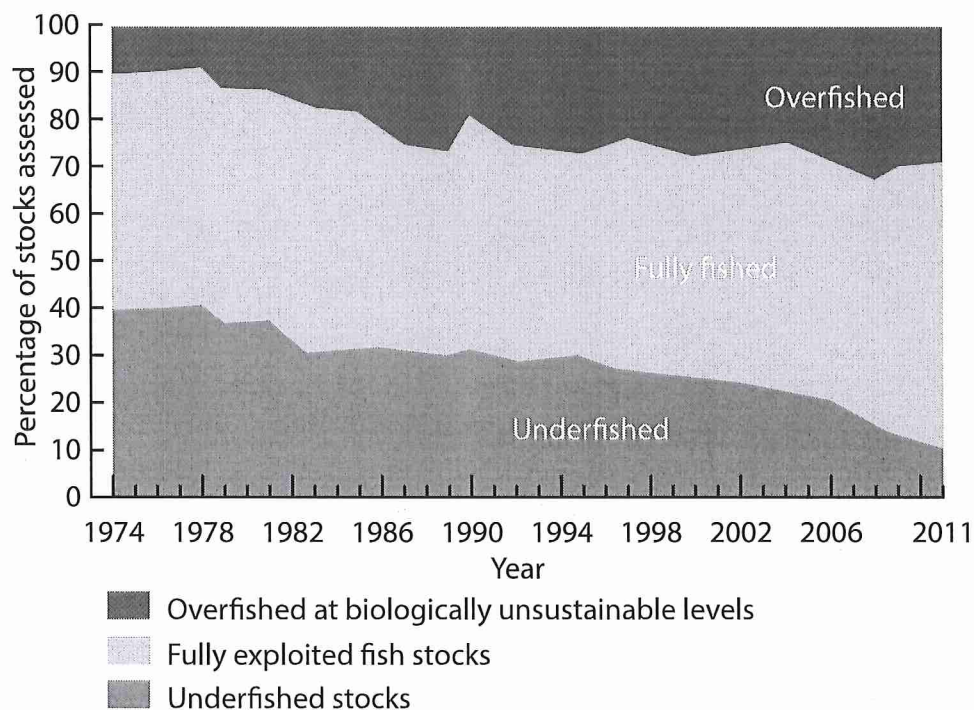
(Total for Question 3 = 10 marks)

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40



(Source: Extract from 'http://www.panda.org/about_our_earth/all_publications/living_planet_report/)

Figure 3

Global trends in the state of marine fish stocks, 1974–2011 (FAO, 2014)

Question number	Answer	Mark
3(b)(i)	A	(1)

Question number	Answer	Mark
3(b)(ii)	Accept between 31% and 27%	(1)

Question number	Answer	Mark
3(b)(iii)	<p>Award 1 mark for suggesting one reason, and a further 1 mark for an appropriate extension, up to a maximum 2 marks:</p> <p>increase in overfishing creates stock reduction for the future (1), which leads to an unsustainable stock level for future generations (1)</p> <p>more overfishing leads to a decline in the percentage of stocks that are underfished (1) because of a reduction in juvenile fish (1)</p> <p>increase in marine pollution/impact of global warming on the oceans (1), leading to a general decline in the health of fish stocks (1).</p> <p>Accept any other appropriate response</p>	(2)

Question number	Answer	Mark
3(b)(iv)	<p>Award 1 mark for a basic environmental impact of overfishing and a further 1 mark for extension through description or explanation, up to a maximum of 4 marks:</p> <p>fewer fish left in the sea/ocean (1) use of data from Figure 3 to support (1)</p> <p>reducing the amount of fish that predators eat (1), therefore having knock-on effects further up the food chain (1).</p> <p>increases the species further down the food chain that the fish would have consumed (1)</p> <p>a decline in fish stocks in one area (1) could lead to other un-tapped parts of the ocean might becoming exploited (1).</p> <p>Accept any other appropriate response.</p>	(4)

42

Spelling, punctuation and grammar will be assessed in 5 (e)

- 5** The development, production and consumption of different water resources needs to be managed carefully.

(a) Identify the percentage of the Earth's water that is fresh water.

(1)

- ☐ **A** 3%
- ☐ **B** 40%
- ☐ **C** 60%
- ☐ **D** 97%

Study Figure 5 in the Resource Booklet.

(b) (i) Calculate the increase in water use between 1950 and 2010.

(1)

..... million acre-feet

(ii) Calculate water use as a percentage of water supply in 1986.

(1)

..... %

(iii) Identify the total water use in 2020 if the trend shown on Figure 5 continued.

(1)

- ☐ **A** 11.5
- ☐ **B** 13
- ☐ **C** 14.5
- ☐ **D** 18

43

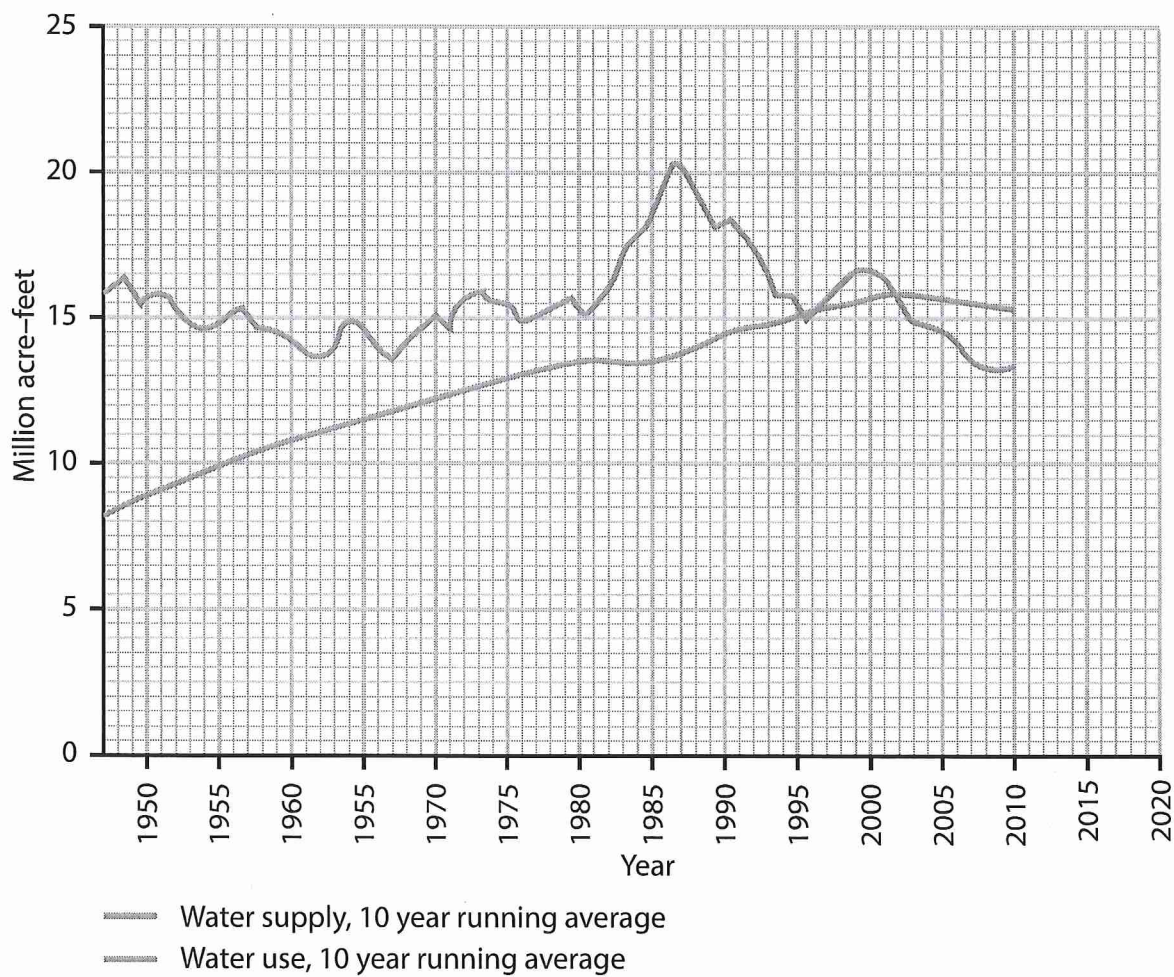


Figure 5

Water supply and water use in the Colorado River Basin, 1950–2010

44

Question 5 – Water resource management

Question number	Answer	Mark
5(a)	A	(1)

Question number	Answer	Mark
5(b)(i)	7.5 million acre-feet	(1)

Question number	Answer	Mark
5(b)(ii)	65.8% Accept between 60% and 70%	(1)

Question number	Answer	Mark
5(b)(iii)	C	(1)

Question number	Answer	Mark
5(b)(iv)	<p>Award 1 mark for suggesting one reason, and a further 1 mark for an appropriate extension, up to a maximum 2 marks:</p> <p>between 1950 and 1980, the area received a similar amount of rainfall (1) so the water supply did not change very much during that period (1)</p> <p>the Government might have been trying to conserve water since 1988 (1) which has led to a fall in water supply (1)</p> <p>water transport systems / pipes may be leaking and in need of repair (1), which is why water supply has been falling in the last 20 years (1)</p> <p>increased amount of rainfall / wetter seasons (1) increased the water supply during the early-mid 1980s (1).</p> <p>Accept any other appropriate response</p>	(2)

Answer only one question from Question 4 (Energy Resource Management) and Question 5 (Water Resource Management).

Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.

Chosen question number: Question 4 ☐ Question 5 ☐

Spelling, punctuation and grammar will be assessed in 4 (e)

4 The development, production and consumption of different energy resources needs to be managed carefully.

(a) Identify the renewable energy resource.

(1)

- ☐ A natural gas
- ☐ B coal
- ☐ C the sun
- ☐ D oil

Study Figure 4 in the Resource Booklet.

(b) (i) Calculate the increase in **onshore** wind power generation between 2000 and 2010.

(1)

..... MW

(ii) Calculate the percentage of total wind power that was from offshore generation in 2010.

(1)

..... %

(iii) Identify the total wind power generated in 2015 if the trend shown on Figure 4 continued.

(1)

- ☐ **A** 8 000
- ☐ **B** 12 000
- ☐ **C** 16 000
- ☐ **D** 20 000

(iv) Suggest **one** reason for the trend between 2000 and 2010 in Figure 4.

(2)

.....

.....

.....

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.....

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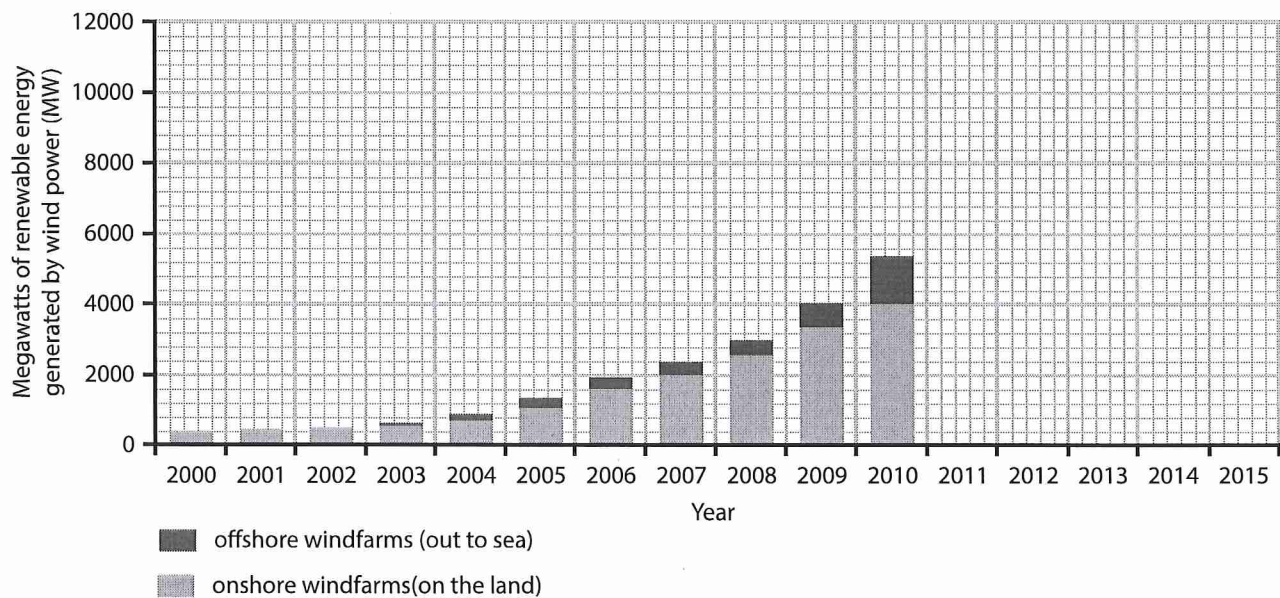


Figure 4

Renewable energy generated by wind power in the UK, 2000–2013

48

Question 4 – Energy resource management

Question number	Answer	Mark
4(a)	C	(1)

Question number	Answer	Mark
4(b)(i)	3600 MW Accept 3500 to 3700 MW	(1)

Question number	Answer	Mark
4(b)(ii)	24.5% Accept 22% to 28%	(1)

Question number	Answer	Mark
4(b)(iii)	B	(1)

Question number	Answer	Mark
4(b)(iv)	<p>Award 1 mark for suggesting one reason, and a further 1 mark for an appropriate extension, up to a maximum 2 marks:</p> <p>government renewable energy targets (such as Kyoto Protocol) (1) because it incentivises investment in renewable energy sources (1)</p> <p>desire to increase the UK's energy mix (1), which will reduce reliance on fossil fuels (1)</p> <p>government subsidies for renewable energy (1), which makes investment in renewable energy sources more viable/cheaper (1)</p> <p>public dislike of onshore windfarms/'nimbyism' (1) has led to an increase in offshore wind farm construction (1).</p> <p>Accept any other appropriate response</p>	(2)

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

Which of the following are the correct units used for cross-sectional area in Figure 1b.

(1)

- ☐ A m^2
- ☐ B m^3
- ☐ C cm^2
- ☐ D mm^2

(ii) Calculate the mean and median depth of the river.

(2)

Mean depth = m

Median depth = m

Question number	Answer	Mark
1(d)(i)	A	(1)

Question number	Answer	Mark
1(d)(ii)	Mean depth = 0.28 m (1) Median depth = 0.16 m (1)	(2)

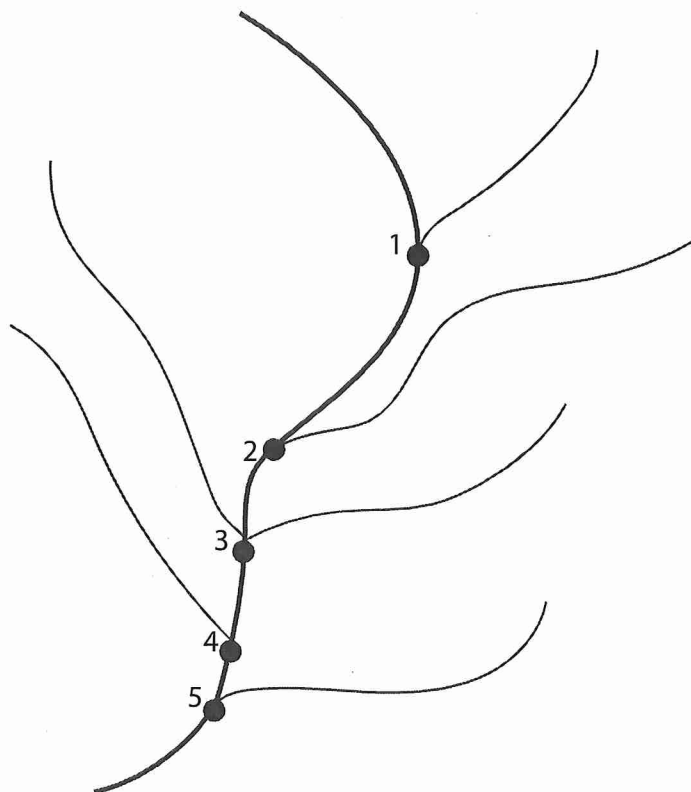


Figure 1a

Channel variable	Units	Site 1	Site 2	Site 3	Site 4	Site 5
Width (m)	(m)	0.45	0.52	0.78	0.85	1.10
Depth (m)	(m)	0.10	0.13	0.16	0.80	0.21
Cross-sectional area		0.05	0.07	0.12	0.68	0.23
Velocity	(m/sec)	0.45	0.47	0.56	0.55	0.51
Discharge	(m ³ /sec)	0.02	0.03	0.07	0.37	0.12

Figure 1b

A table of river data collected by a geography student.

Describe

Describe

This asks you to pick out patterns on a graph or map. In the exams we have seen so far you will awarded 2 marks for this question.

You should use the PQE Structure.

Pattern—Describe the trend. (Increases, Describe, Fluctuates, increases/decreases dramatically then flattens out, plateau)

Qualification—Use numbers (work out the average, range, difference between the highest and lowest, say when the highest and lowest occur on the graph or map)

Exceptions—Pick out anything that stands out as being different from the pattern you can see.

- (iii) One form of information that could be used to investigate the impact is websites.

Describe **one** technique that could be chosen to process this information.

(2)

Question number	Answer	Mark
2(c)(ii)	<p>Award 1 mark for each descriptive point, up to a maximum of 2 marks:</p> <p>A 'wordle' or similar online tool could be used (1) to analyse the text of websites to see words frequently in the source text (1).</p> <p>Text could be coded into positive and negative impacts (1) and then counted (1).</p> <p>Accept any other reasonable response.</p>	(2)

54

Suggest

Examiner Marked Responses

Example 2 – GCSE A, Paper 2, Question 5b (iv)

- 5 The development, production and consumption of different water resources needs to be managed carefully.

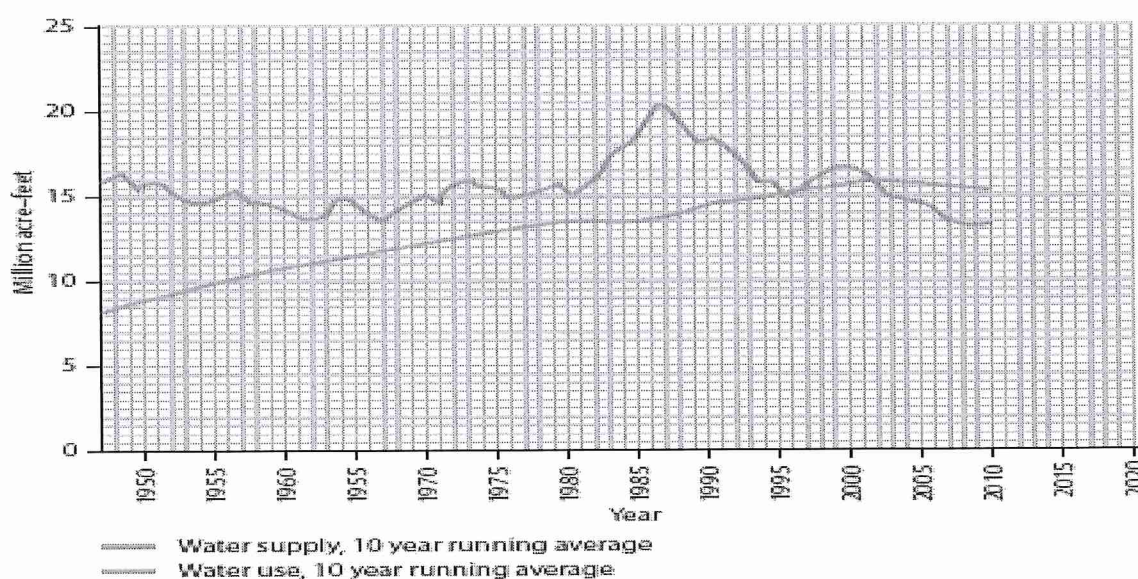


Figure 5
Water supply and water use in the Colorado River Basin, 1950–2010

- (iv) Suggest **one** reason for the changes in water supply between 1950 and 2010 on Figure 5.

(2)

Mark scheme

Question number	Answer	Mark
5(b)(iv)	<p>Award 1 mark for suggesting one reason, and a further 1 mark for an appropriate extension, up to a maximum 2 marks:</p> <p>between 1950 and 1980, the area received a similar amount of rainfall (1) so the water supply did not change very much during that period (1)</p> <p>the Government might have been trying to conserve water since 1988 (1) which has led to a fall in water supply (1)</p> <p>water transport systems / pipes may be leaking and in need of repair (1), which is why water supply has been falling in the last 20 years (1)</p> <p>increased amount of rainfall / wetter seasons (1) increased the water supply during the early-mid 1980s (1).</p> <p>Accept any other appropriate response</p>	(2)

Student answers to part 5b (iv)

Water supply might have changed because the amount of rainfall entering drainage basins have changed - because some years it seems to be wetter than others.

Examiner's comments

This response is awarded 1 mark.

Question is 'suggest one reason...', therefore application of knowledge and understanding is being assessed here - and a developed point is required for full marks.

The candidate has made a valid point about differing levels of rainfall from year to year (1) but this has not been developed for the second mark, for example by linking this to a decrease in the availability of water for supply.

(ii) Suggest **one** impact of drought for people living in a developed country.

(3)

Question number	Answer	Mark
6(b)(ii)	<p>Award 1 mark for a basic impact, and a further one mark expansion up to a maximum three marks.</p> <p>Domestic water supply shortages (1), leading to hosepipe bans/lack of water for swimming pools (1) as the need for water conservation increases (1).</p> <p>Water supply for recreational purposes is restricted (1), e.g. there is not enough water to irrigate golf courses (1) which could result is a loss of business (1).</p> <p>Water supply for farming is reduced (1), making it harder to irrigate the land and grow crops (1), which might push up food prices for consumers (1).</p> <p>Accept any other appropriate response.</p>	<p>(3)</p>

60

Explain

Examiner

Marked

Responses

62

Open response 'explain' questions

Example 1 – GCSE A, Paper 1, Question 1 (c) (ii)

1 UK landscapes are constantly being changed by different processes.

(ii) Explain **one** way in which farming affects the landscape.

(2)

Mark scheme

Question number	Answer	Mark
1(c)(ii)	<p>Award 1 mark for farming activity and a further one mark for effect on the landscape, up to a maximum of 2 marks:</p> <p>Farming clears the natural surface vegetation/trees (1), which can result in a mono-culture and/or artificial landscape (1)</p> <p>Farming can plant the same crop over and over (1) which can give landscapes the same appearance (1)</p> <p>In some parts of the UK, farming has led to a loss of hedgerows (1) as farmers removed them to improve efficiency of farming (1)</p> <p>Farming has led to sheep in upland landscapes (1) which has created a deforested and grazed/grassy landscape (1)</p> <p>Accept any other appropriate response</p>	(2)

Student answers to 1 (c) (ii)

Farming affects the landscape as trees are cut down and the ground is dug up to provide space for crops and animals. It reduces the amount of animals in the area, and means that sometimes less native plants will grow. This affects the landscape as the land is taken by farming, and many of the trees are destroyed.

Examiner's comments

This response is awarded 2 marks. The candidate has identified a farming activity - cutting trees down (1) and has then explained why this affects the landscape - decline of plant species (1).

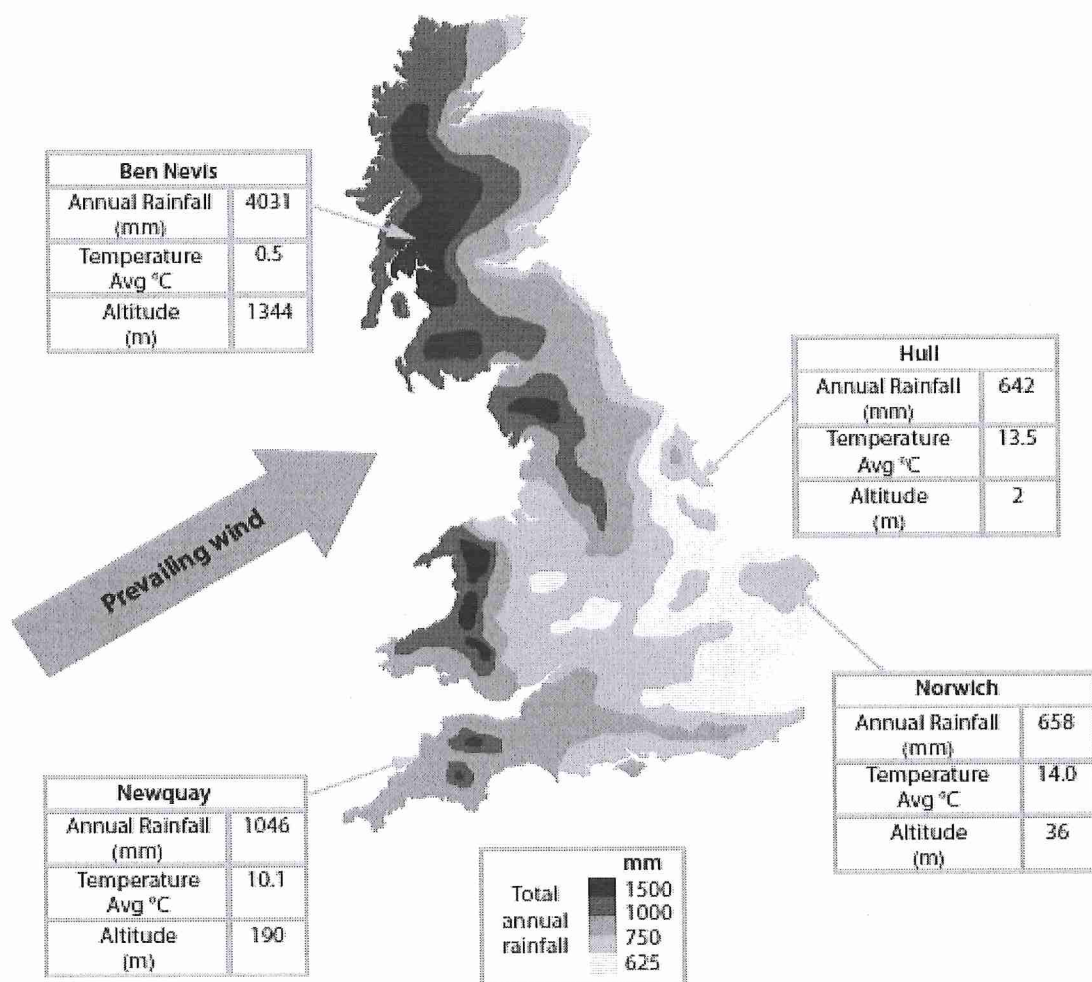
farming affects the landscape when farmers dig up land to plant crops and or when animals eat the grass and mow it which could affect the growth of the grass.

Examiner's comments

This response is awarded 1 mark. The candidate has identified a farming activity which affects the landscape - dig up land to plant crops (1) but has not developed this point by offering any explanation as to why this affects the landscape. The idea about 'eating the grass' is not worthy of credit.

Example 3 – GCSE A, Paper 1, Question 5 (a) (iv)

5 The UK's climate experiences significant variations.



(Source: ARIC's Atmosphere, Climate & Environment Information Programme)

Figure 7

Map showing rainfall and other climatic variables for locations in the UK

(iv) The prevailing wind, which is shown in Figure 7, influences the climate of the UK.

Explain **one** way prevailing wind affects the climate of the UK.

(3)

Mark scheme

Question number	Answer	Mark
5(a)(iv)	<p>Award 1 mark for point about prevailing wind and a further one mark for each effect on the climate of the UK, up to a maximum of 3 marks.</p> <p>Map shows larger amounts of precipitation in the west (1) because the prevailing wind brings moist air from the south west (1), which rises over land and condenses (1).</p> <p>Map shows locations in the east have higher temperatures (1), which could be because they are not facing the prevailing wind (1) and therefore are sheltered by the higher altitudes in the west (1).</p> <p>Accept any other appropriate response</p>	(3)

Student answers to 5 (a) (iv)

The map shows that the prevailing wind in the UK blows from the south west. This means there is more rainfall in the west. This is because the wind picks up moisture as it passes over the sea. When it reaches the land the air rises and water vapour condenses and it rains.

Examiner's comments

This response is awarded 3 marks.

The candidate makes the initial point that there is more rainfall in the west (1) followed by two linked points; the first about the wind picking up moisture over the sea (1) and further development linking the rising air/ condensation to higher rainfall (1).

Rainfall is highest in the west while temperature are lower. The prevailing wind is cooler in summer which means it is colder in the west.

Examiner's comments

This response is awarded 2 marks.

The candidate has identified two relevant points about the impact of the prevailing wind on the UK's weather (rainfall and temperature). However, only 1 mark is available for the basic impact so double credit cannot be given here. A second mark is given for the development point about temperature. This would need to be further developed to gain maximum marks.

The temperature is cold in Ben Nevis. It is really hilly.

Examiner's comments

This response is not creditworthy and has been awarded 0 marks. While both points are lifted from the resource, the candidate has not made any links to the prevailing wind direction and not tried to explain why it is cold at this location.

Example 5 – GCSE A, Paper 2, Question 4d

4 The development, production and consumption of different energy resources needs to be managed carefully.

(d) Explain **one** reason why non-renewable energy resources need to be managed.

(4)

Mark scheme

Question number	Answer	Mark
4(d)	<p>Award 1 mark for point about energy source and a further one mark for explanation of its effect, up to a maximum of 4 marks:</p> <p>non-renewable energy resources are finite (1), which means they will eventually run out (1) so alternatives in the form of renewables are needed that can be recycled/reused/replenished (1) over a shorter period of time (1)</p> <p>non-renewable energy resources emit carbon dioxide (1) which is a greenhouse gas (1) and causes global warming (1), which causes sea level rise/extremes in climate (1)</p> <p>Accept any other appropriate response</p>	(4)

Student answers to part 4d

Non-renewable energy resources need to be managed carefully because they will eventually run out. Resources such as coal are bad for the environment because when burnt, they give off CO₂ - this is a green house gas that adds to problems of global warming.

Examiner's comments

This response is awarded 3 marks.

The question only requires one reason, but as it is worth 4 marks, a good degree of depth (rather than breadth) is needed.

The candidate actually covers two reasons: in the first sentence there is a potential 1 mark for saying that non-renewable energy resources will eventually run-out. However, the candidate goes on to make a separate point about giving off carbon dioxide when burnt (1) which is a greenhouse gas (1) which can add to the problems of global warming (1).

Non-renewable energy resources include oil, coal and natural gas. All of these are fossil fuels, and there is only a fixed amount of these on our planet. At the moment, we are using all of the for energy, but eventually all of them will run out because no more of them are being created.

Examiner's comments

This response is awarded 2 marks.

The candidate provides examples of non-renewable resources (for no credit), and then goes on to say that there is only a fixed amount of them for 1 mark ('finite' on the mark scheme) and that they will eventually run out for the second mark.

Explain

There is the most common command that you will come across in all 3 exams. It is a chance for you to show off and use high level language in a structured way.

You need to pay attention to the amount of marks available because different amounts of marks will require different ways of writing.

Explain for 2 marks:

- ⇒ This requires you to write a point and give a short explanation.

Explain for 3 marks:

- ⇒ Requires a PEEL paragraph.

Explain for 2 ideas for 4 marks.

- ⇒ Give a point and explain twice. You will be given numbers 1 and 2 in the lined area under the question.

Explain for 4 marks.

- ⇒ A clear and well written PEEL paragraph.

The marks tend to focus on the way you answer and not the information.

One of the major pitfalls in the question is thinking that you can judge give lots of information.

Explain PEEL sentence Starters:

Point

- ⇒ To begin with....
- ⇒ One factor to explain is....
- ⇒ The first reason....

Evidence

- ⇒ happened
- ⇒ This is shown by....
- ⇒ This is evident in the example from/by
- ⇒ As a result of this.....

Explanation

- ⇒ And further more....
- ⇒ This is because....
- ⇒ This leads to....

Link

- ⇒ So, this means that.....
- ⇒ Consequently.....
- ⇒ This therefore....
- ⇒ Shows that....a

(ii) Explain **one** way in which farming affects the landscape.

(2)

(Total for Question 1 = 6 marks)

Question number	Answer	Mark
1(c)(ii)	<p>Award 1 mark for farming activity and a further one mark for effect on the landscape, up to a maximum of 2 marks:</p> <p>Farming clears the natural surface vegetation/trees (1), which can result in a mono-culture and/or artificial landscape (1)</p> <p>Farming can plant the same crop over and over (1) which can give landscapes the same appearance (1)</p> <p>In some parts of the UK, farming has led to a loss of hedgerows (1) as farmers removed them to improve efficiency of farming (1)</p> <p>Farming has led to sheep in upland landscapes (1) which has created a deforested and grazed/grassy landscape (1)</p> <p>Accept any other appropriate response</p>	(2)

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30

- (iv) The prevailing wind, which is shown in Figure 7, influences the climate of the UK.

Explain **one** way prevailing wind affects the climate of the UK.

(3)

(Total for Question 5 = 7 marks)

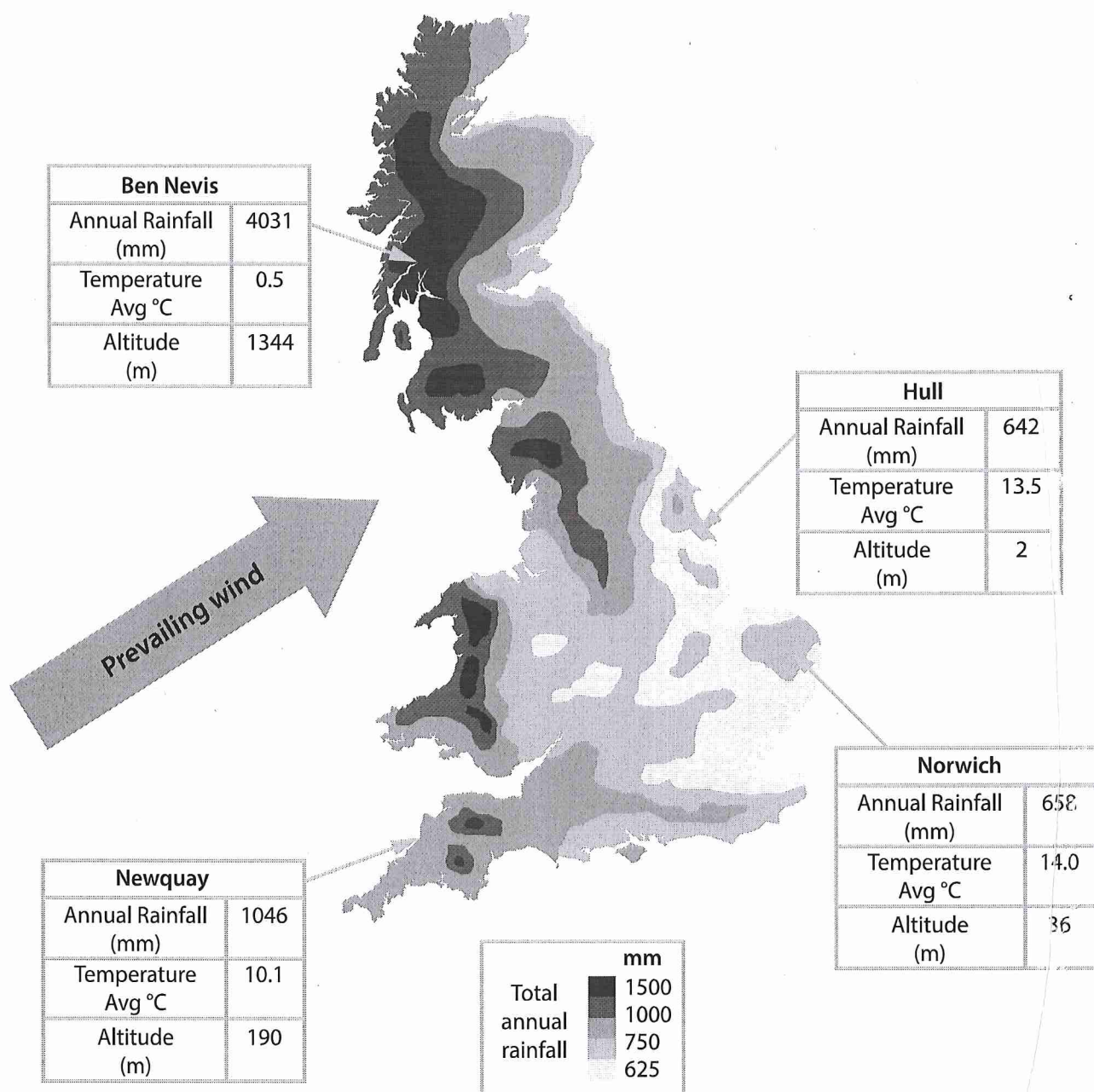
- (iii) Channelisation is an example of hard engineering.

Explain **one** way channelisation helps manage river landscapes.

(2)

Question number	Answer	Mark
5(a)(iv)	<p>Award 1 mark for point about prevailing wind and a further one mark for each effect on the climate of the UK, up to a maximum of 3 marks.</p> <p>Map shows larger amounts of precipitation in the west (1) because the prevailing wind brings moist air from the south west (1), which rises over land and condenses (1).</p> <p>Map shows locations in the east have higher temperatures (1), which could be because they are not facing the prevailing wind (1) and therefore are sheltered by the higher altitudes in the west (1).</p> <p>Accept any other appropriate response</p>	(3)

Question number	Answer	Mark
3(a)(iii)	<p>Award 1 mark for point about channelisation and a further one mark for how this protects river landscapes, up to a maximum of 2 marks:</p> <p>Making the channel wider or deeper (1) increasing the capacity of the river to hold water (1)</p> <p>Where a channel is straightened/meanders are removed (1) so water can pass through the area more quickly (1)</p> <p>Concreting of beds and banks (1) reducing friction/increasing velocity/reducing flood risk to that area (1)</p> <p>Accept any other appropriate response</p>	(2)



(Source: ARIC's Atmosphere, Climate & Environment Information Programme)

Figure 7

Map showing rainfall and other climatic variables for locations in the UK

74

(b) (i) Explain **one** human cause of drought.

(2)

(iii) Location Y experiences dry conditions.

Explain **one** reason why atmospheric circulation contributes to the climatic conditions at Y.

(3)

Question number	Answer	Mark
6(b)(i)	<p>Award 1 mark for point about human cause of drought and a further one mark for explanation of this, up to a maximum of 2 marks.</p> <p>De-forestation leads to a reduced tree cover (1) which means that there is less interception (1).</p> <p>Intensification of farming (1) may involve unsustainable use of irrigated water in crop production (1).</p> <p>Construction of large reservoirs (1) may cause drought downstream by reducing the flow of water (1).</p> <p>Reject natural causes of drought.</p> <p>Accept any other appropriate response</p>	(2)

Question number	Answer	Mark
6(a)(iii)	<p>Award 1 mark for point about atmospheric circulation and a further one mark for its contribution to climatic conditions, up to a maximum of 2 marks.</p> <p>The air mass originates from an area of high pressure (around sub equatorial South America) (1) which brings dry/hot weather (1) so there is a lack of rainfall (1).</p> <p>The high pressure conditions (1) lead to cloudless skies/warm temperatures (over 20°) (1) because of the lack of condensation (1).</p> <p>Accept any other appropriate response</p>	(3)

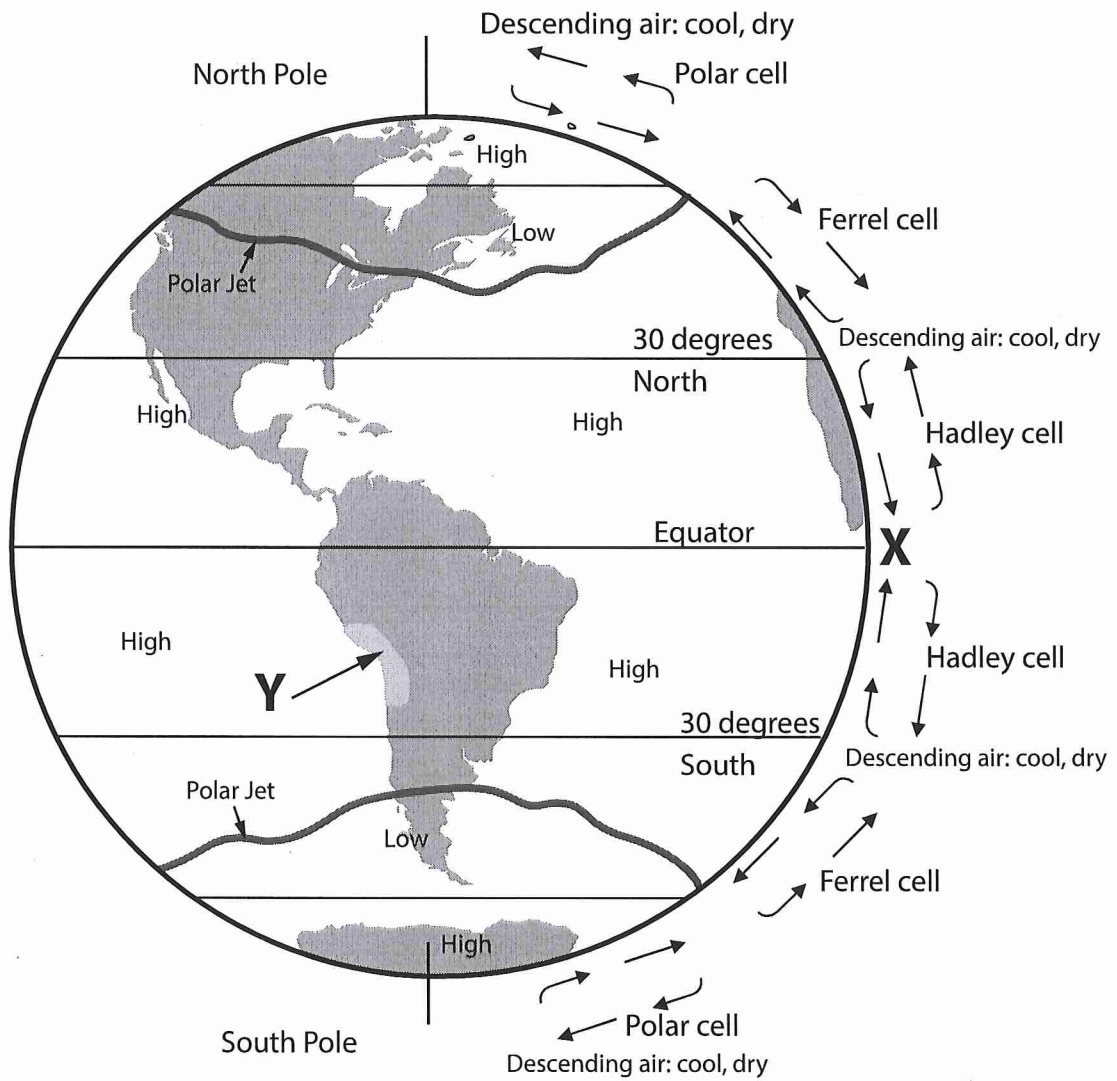


Figure 8
Global atmospheric circulation

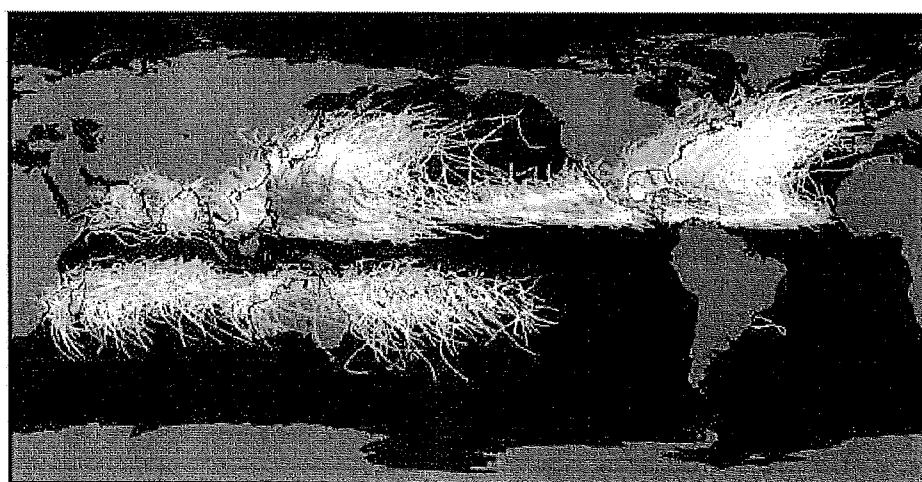
(ii) Study Figures 9b and 9c.

Explain **two** reasons for the link between sea surface temperatures and cyclone distribution.

(4)

1

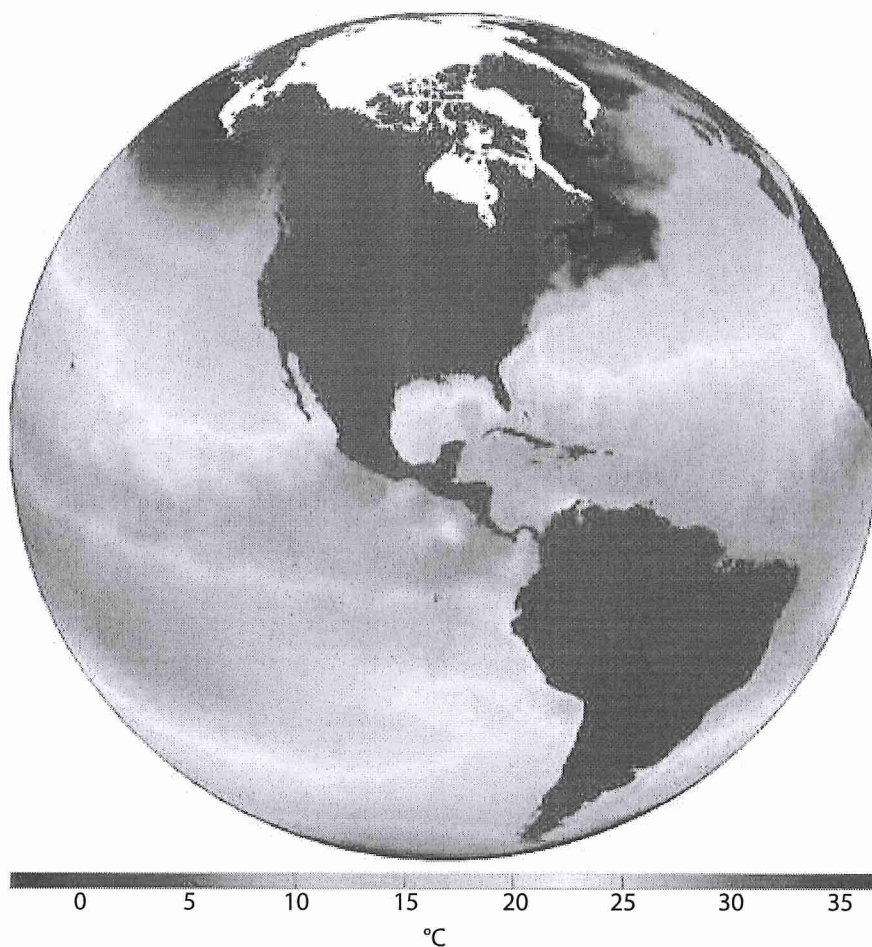
2



(Source: © NASA)

Figure 9b

Map showing the global distribution of cyclones' tracks



(Source: © National Oceanic and Atmospheric Administration and the Department of Commerce)

Figure 9c
Global sea surface temperatures in °C

Question number	Answer	Mark
6(c)(ii)	<p>Award 1 mark for point about sea surface temperature and a further one mark for how this links to cyclone distribution, up to a maximum of 4 marks.</p> <p>Figure 9c shows warm sea surface temperatures are near the equator (1) which corresponds with the pattern of hurricanes forming around the equator in Figure 9b (1).</p> <p>Figure 9c shows warm sea surface temperatures of over 25 °C to the east of South America (1), which would create the pattern of cyclones shown to the east of Central and North America (1).</p> <p>Figure 9b shows cyclones only form just north or south of the equator only, but not on the equator (1) where there is rotation of air because of the Coriolis effect (1).</p> <p>Pattern of cyclones on Figure 9b shows they do not normally form over land/in colder seas with surface temperatures much less than 25 °C (1), which is because they need the warm water as a source of latent heat of energy (1).</p> <p>Accept any other appropriate response</p>	(4)

(ii) Explain **two** ways in which plants have adapted to living in a tropical rainforest.

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(ii) With reference to the line graph in Figure A, explain how changes in altitude affect the distribution of ecosystems.

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Question number	Answer	Mark
7(d)(ii)	<p>Award 1 mark for identification of the adaptation and a further one mark for an explanation of the adaptation, up to a maximum of 4 marks.</p> <p>Drip tips (1) to remove excess water in conditions of over 2000mm of precipitation (1).</p> <p>Buttress roots (1) to stabilise the trees as they increase in height (1).</p> <p>Waxy leaves (1) to stop water infiltrating into leaf and rotting it (1).</p> <p>Tall straight tree trunks (1) to grow straight up towards the light to out compete other species (1).</p> <p>Epiphytes sink roots into a host plant (1) so they do not need to sink roots to the ground (1).</p> <p>Accept any other appropriate response</p>	(4)

Question number	Answer	Mark
7(b)(ii)	<p>Award 1 mark for interpretation of the line graph and a further mark for a link to the distribution of ecosystems, up to a maximum of 2 marks each.</p> <p>Tundra can exist only above 4000 m (1) because other trees cannot grow in the thin soil at the top of a mountain (1).</p> <p>The line graph shows the steepest increase is between 1900 and 3800 m (1), which means that coniferous forests can exist in a greater range of altitude/temperature than the other ecosystems shown on Figure A (1).</p> <p>Tropical can exist only under 900 m above sea level (1) because it cannot survive in the colder temperatures associated with higher altitude (1).</p> <p>Accept any other appropriate response</p>	(4)



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(iii) Study Figure 11 in the Resource Booklet.

Explain why there are differences in these nutrient cycles.

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Question number	Answer	Mark
7(d)(iii)	<p>Award 1 mark for identification of the difference and a further one mark for an explanation of this point, up to a maximum of 4 marks.</p> <p>Biomass store – bigger in TRF (1) as more nutrients are held in the vegetation because of the high biodiversity in the system (1) so there are more available nutrients (1), as there is more photosynthesis, meaning a greater amount of productivity (1).</p> <p>Soil store – smaller in TRF (1) – as the nutrient uptake is higher in TRF and there is greater amount of leaching due to more rainfall in TRF (1).</p> <p>Litter store – smaller in the TRF (1) as the rate of decomposition is much greater because of the high humidity (1).</p> <p>Arrows are generally larger in TRF as the rate of nutrient recycling is much faster between stores (1) due to climatic and biodiversity, meaning that transfer is more preferable in TRF (1).</p> <p>Accept comments based on different-sized stores/arrows in the temperate deciduous forest.</p>	(4)

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