Write your name here

Surname	Other names

Edexcel GCSE

Centre Number	Candidate Number

Geography A

Unit 2: The Natural Environment

Foundation Tier

Tuesday 24 January 2012 – Afternoon **Time: 1 hour**	Paper Reference **5GA2F/01**

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- In Section **A** answer only **one** question from questions 1, 2, 3 **or** 4.
- In Section **B** answer **either** question 5 **or** 6.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

Information

- The total mark for this paper is 50.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed
  – *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Check your answers if you have time at the end.

Turn over ▶

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6/7/7/4/4/3

P 3 9 9 2 4 R A 0 1 4 0

PEARSON

SECTION A – THE PHYSICAL WORLD

Answer only ONE question from Section A.

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 ☒.

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 ☒.

Topic 1: Coastal Landscapes

If you answer Question 1 put a cross in this box ☒

1 (a) Look at Figure 1a.

It shows coastal landforms.

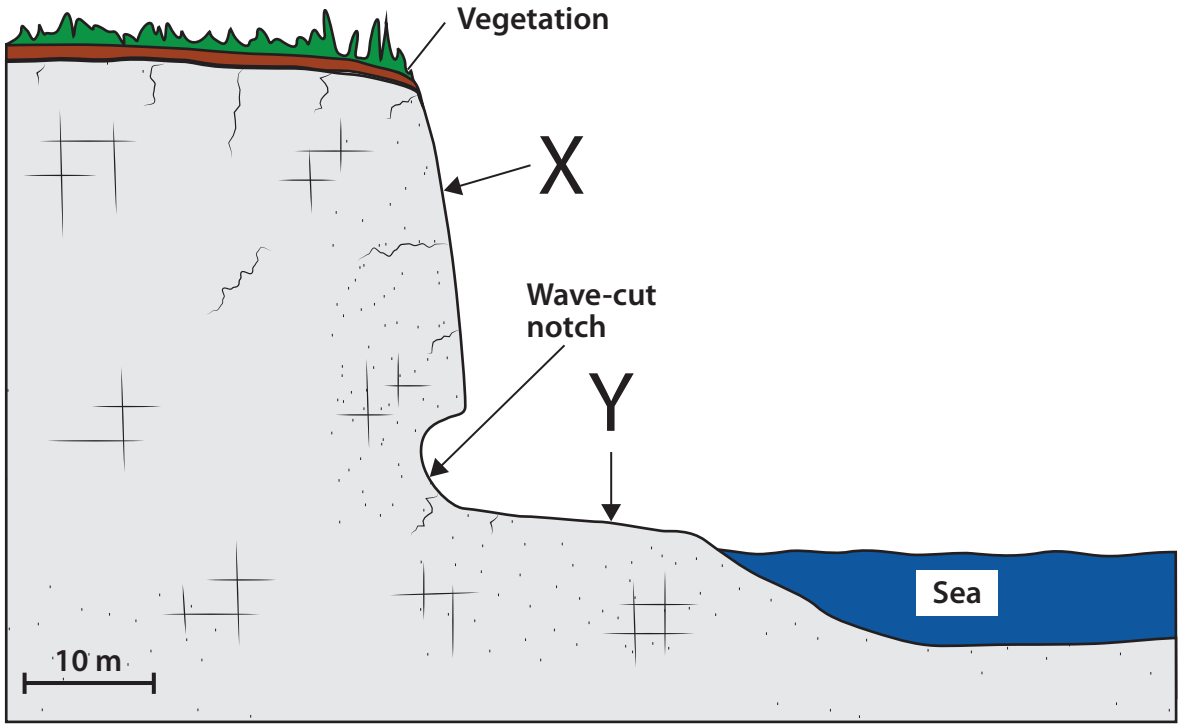


Figure 1a

(i) Name landforms **X** and **Y** shown on Figure 1a.

(2)

X .....

Y .....

(ii) Describe landform **X** shown on Figure 1a.

(2)

(iii) Physical weathering can affect the landforms shown in Figure 1a.

Outline the process of physical weathering.

(3)

(iv) The wave-cut notch has been eroded by corrasion.

What is corrasion?

(1)

- ☒ **A** when air is compressed into cracks by waves
- ☒ **B** when chemicals in the sea react with the cliff face
- ☒ **C** when pebbles crash together and become smoother and rounded
- ☒ **D** when the sea throws rock against the cliff face

(v) What is the correct order for formation of a wave-cut platform?

(1)

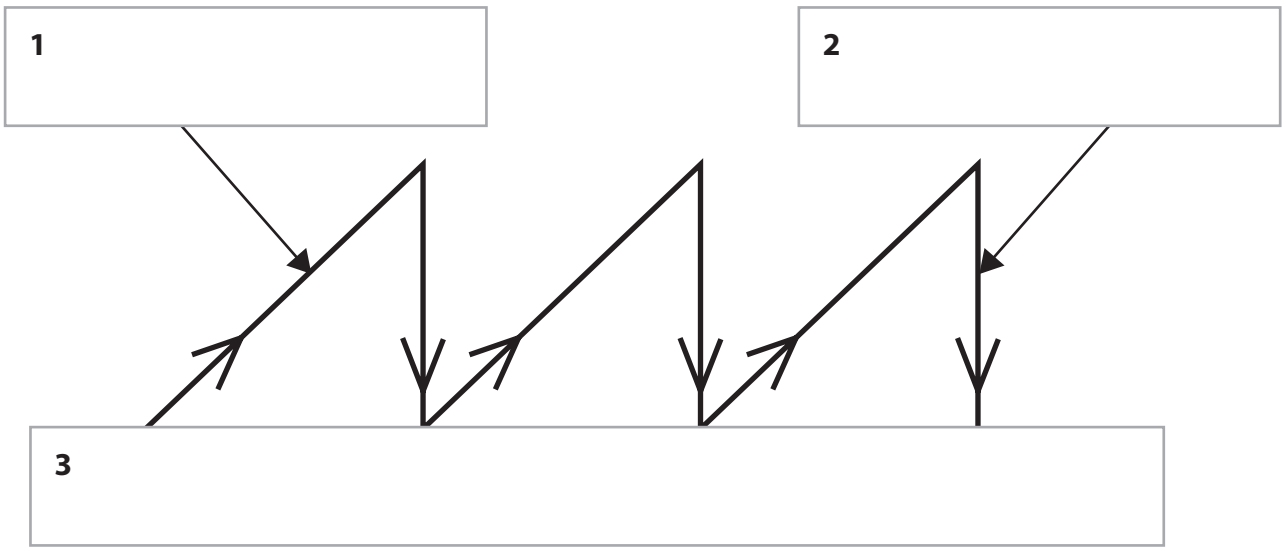
- ☒ **A** notch, erosion of cliff, cliff collapse, wave-cut platform
- ☒ **B** wave-cut platform, cliff collapse, notch, erosion of cliff
- ☒ **C** erosion of cliff, notch, cliff collapse, wave-cut platform
- ☒ **D** cliff collapse, notch, erosion of cliff, wave-cut platform

(vi) Longshore drift can help move cliff material which has fallen on to the beach.

Label boxes **1** and **2** with the correct terms **swash** and **backwash**.

Draw an arrow in box **3** to show the direction of longshore drift.

(2)



(b) Look at Figure 1b.

It shows the length of coastline where erosion is taking place in some European countries.

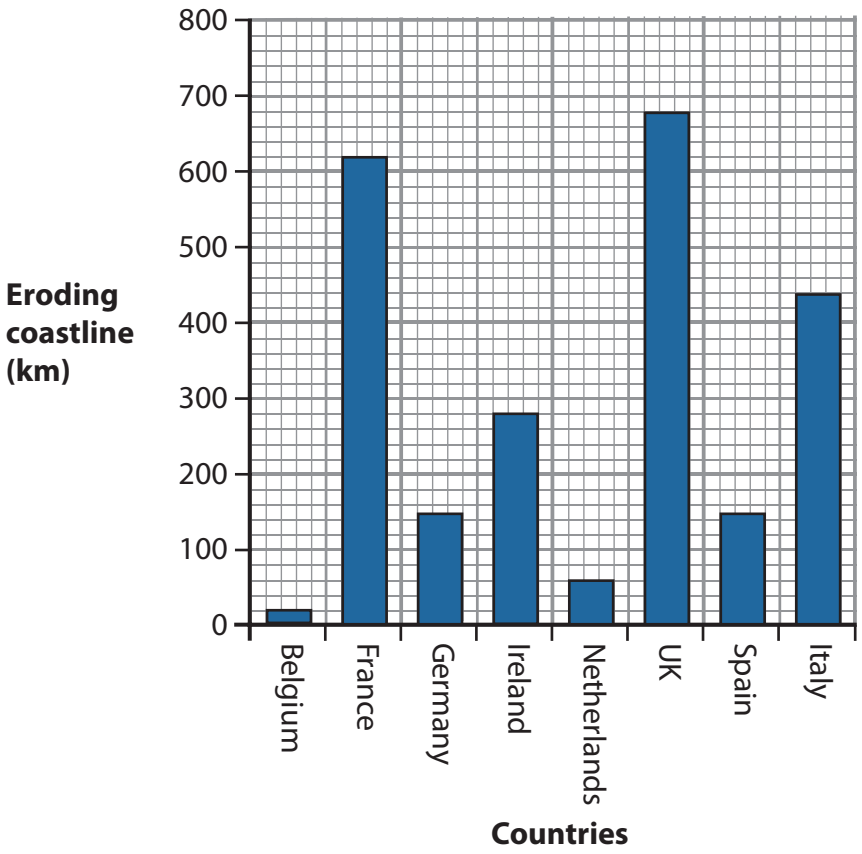


Figure 1b

(i) Which **three** countries have the greatest length of eroding coastline?

(1)

- ☒ **A** France, Belgium, UK
- ☒ **B** UK, France, Italy
- ☒ **C** Italy, UK, Ireland
- ☒ **D** Netherlands, UK, France

(ii) Complete the sentences about eroding coastlines.

Use some of the words and numbers in the box below.

(5)

fetch	**150**	**longest**	**shortest**	**50**
destructive	**constructive**	**sea walls**	**lifeguards**	

Belgium has the ..... length of eroding coastline.

The amount of eroding coastline in Spain is ..... km.

Waves which travel from the south-west to the UK have a large

..... .

This means that the waves are often ..... .

One way of protecting the coastline against these waves is to build

..... .

(iii) Soft engineering is a way of managing the coastline.

Describe the advantages and disadvantages of soft engineering techniques.

(4)

Advantages

Disadvantages

(c) Describe how the effects of coastal flooding can be reduced through prediction and prevention.

Use examples in your answer.

(4)

(Total for Question 1 = 25 marks)

Topic 2: River Landscapes

If you answer Question 2 put a cross in this box ☒

2 (a) Look at Figure 2a.

It shows river landforms.

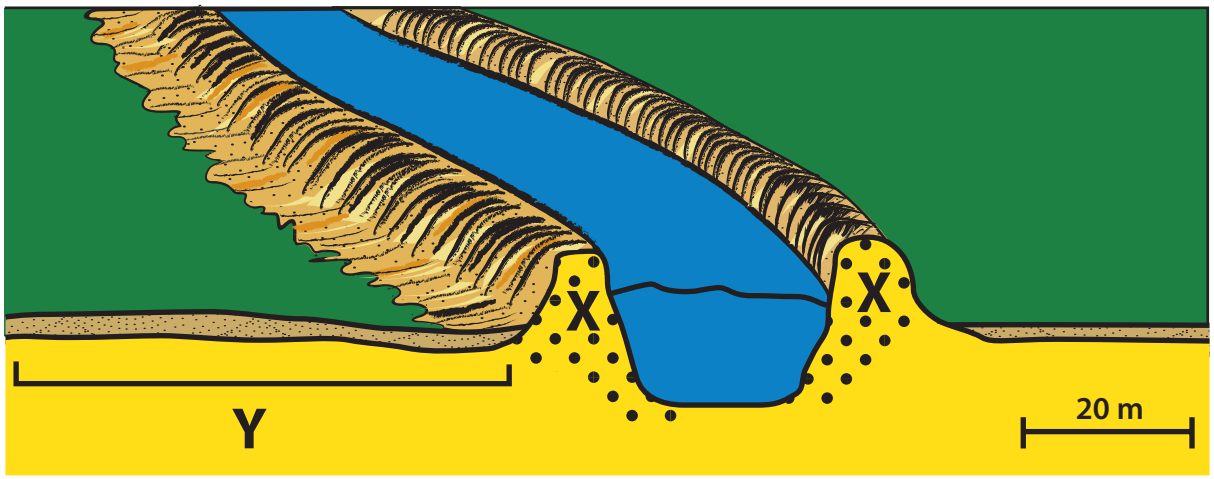


Figure 2a

(i) Name landforms **X** and **Y** shown on Figure 2a.

(2)

X .....

Y .....

(ii) Describe landform **Y** shown on Figure 2a.

(2)

.....

.....

.....

.....

(iii) Mass movement can occur in river valleys.

Outline the process of mass movement.

(3)

(iv) Meanders can develop into

(1)

- ☒ **A** waterfalls
- ☒ **B** interlocking spurs
- ☒ **C** ox-bow lakes
- ☒ **D** a watershed

(v) Meanders can be affected by corrasion.

Corrasion is when

(1)

- ☒ **A** water is forced into cracks by moving water
- ☒ **B** chemicals in the river react with the bed and banks
- ☒ **C** pebbles crash together and become smoother and more rounded
- ☒ **D** the river throws sediment against the bed and banks

(vi) Look at Figure 2b.

It is a sketch of a meander bend.

Label boxes **1** and **2** with the correct terms **river cliff** and **slip-off slope**.

Draw an arrow in the correct place in box **3** to show the fastest flow of the river.

(2)

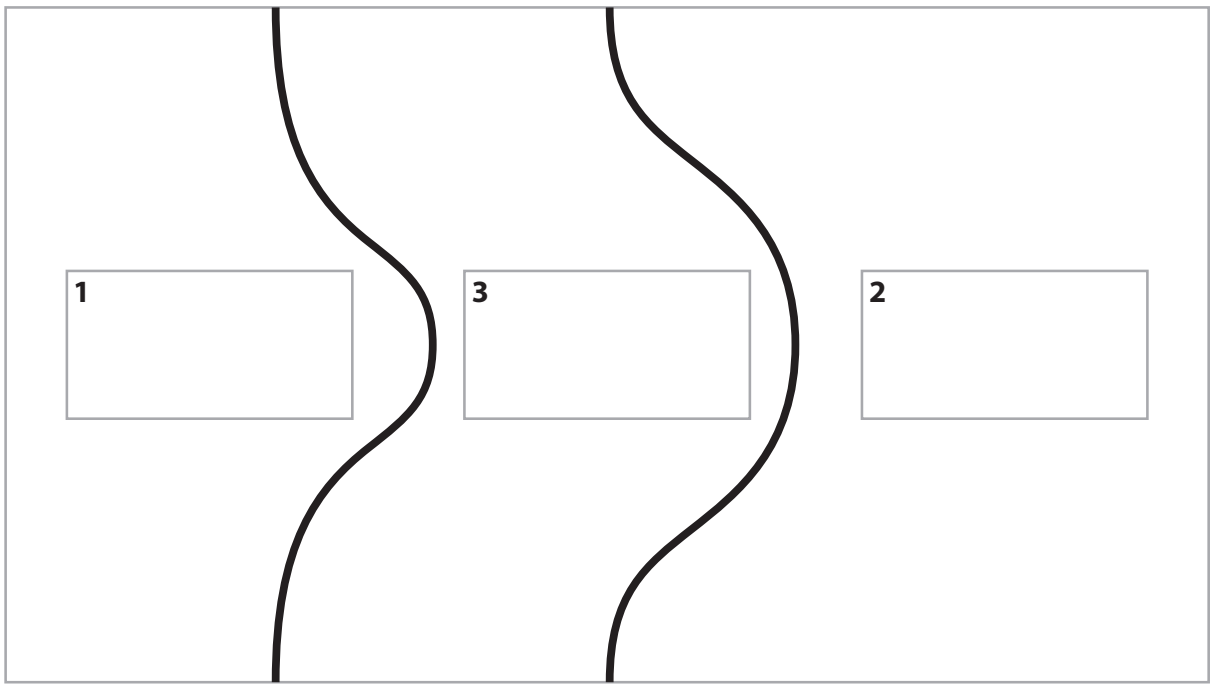


Figure 2b

(b) Look at Figure 2c.

It shows the cost of river flood damage in the UK between 2004 and 2010.

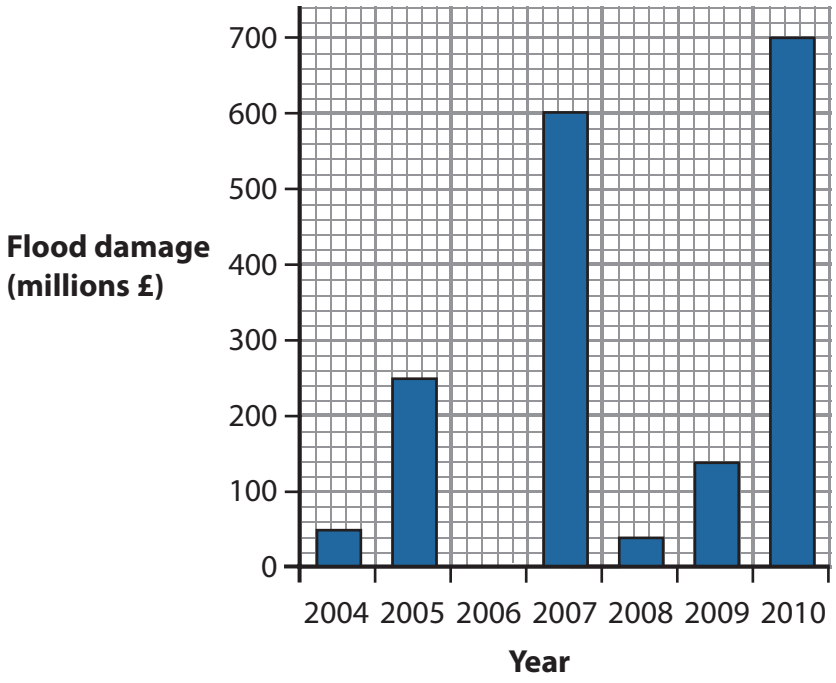


Figure 2c

(i) In which years were the **three** highest costs of flood damage?

(1)

- ☒ **A** 2005, 2007, 2009
- ☒ **B** 2007, 2009, 2010
- ☒ **C** 2007, 2008, 2010
- ☒ **D** 2005, 2007, 2010

(ii) Complete the sentences to describe Figure 2c.

Use some of the words and numbers in the box below.

(5)

140	**700**	**2006**	**2010**	**fallen**
varied	**more**	**cooling**	**less**	**warming**

The highest cost of flood damage occurred in 2010 which was

..... million.

This was a large increase compared with ..... .

Cost of flood damage has ..... since 2004.

Increased flooding could be due to ..... rainfall

caused by global ..... .

(iii) Soft engineering is a way of managing river flooding.

Describe the advantages and disadvantages of soft engineering techniques.

(4)

Advantages

Disadvantages

(c) Describe how the effects of river flooding can be reduced through prediction and prevention.

Use examples in your answer.

(4)

(Total for Question 2 = 25 marks)

Topic 3: Glaciated Landscapes

If you answer Question 3 put a cross in this box ☒

3 (a) Look at Figure 3a.

It shows a cross-section of upland glacial landforms.

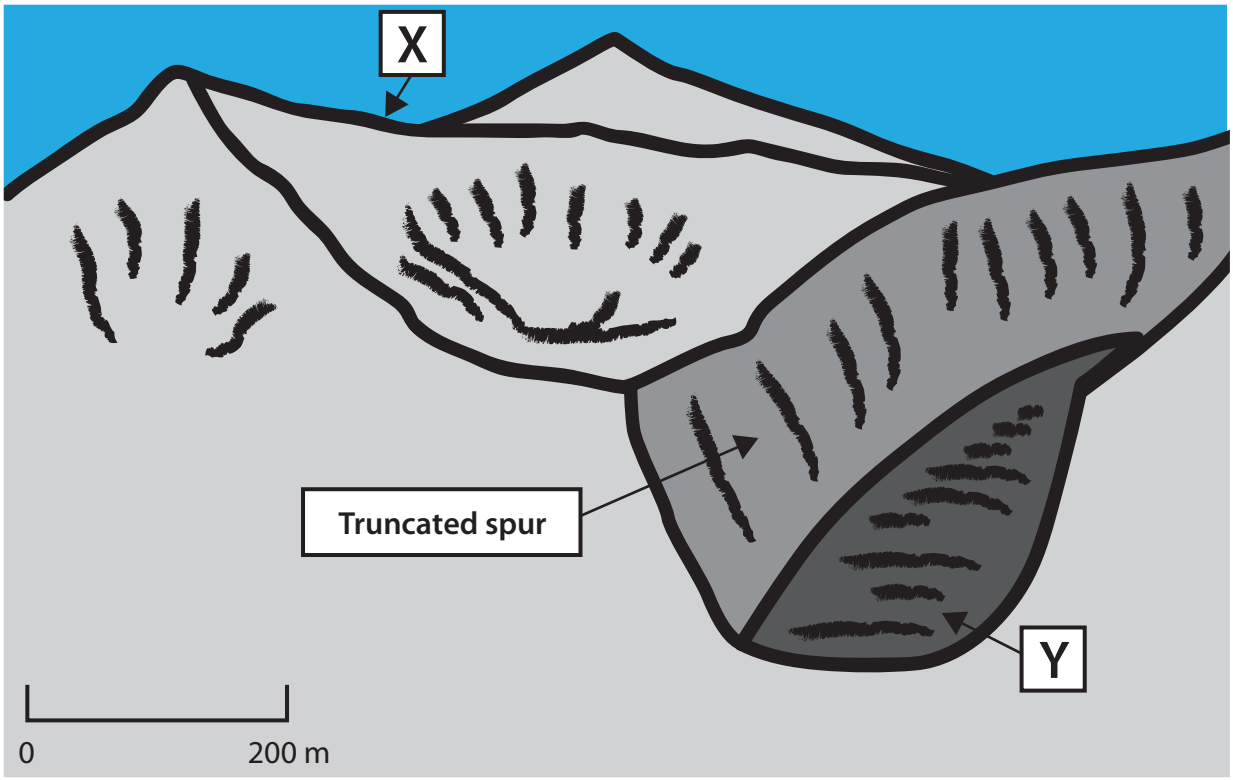


Figure 3a

(i) Name landforms **X** and **Y** shown on Figure 3a.

(2)

X .....

Y .....

(ii) Describe landform **Y** shown on Figure 3a.

(2)

.....

.....

.....

.....

(iii) Freeze thaw weathering can affect the landforms in Figure 3a.

Describe the process of freeze thaw.

(3)

(iv) The truncated spur is affected by abrasion.

Abrasion is when

(1)

- ☒ **A** air is compressed into cracks by moving ice
- ☒ **B** ice melts and refreezes, therefore removing rocks
- ☒ **C** pebbles crash together and become smoother and more rounded
- ☒ **D** rocks in the moving ice scrape the valley sides and floor

(v) A corrie lake is

(1)

- ☒ **A** a knife-edged ridge
- ☒ **B** an armchair shaped hollow
- ☒ **C** water accumulated in an armchair shaped hollow
- ☒ **D** a thin lake damned behind terminal moraine

(vi) Look at Figure 3b.

It is a corrie.

Label boxes **1**, **2** and **3** with the correct terms **abrasion**, **plucking** and **rock lip**.

(2)

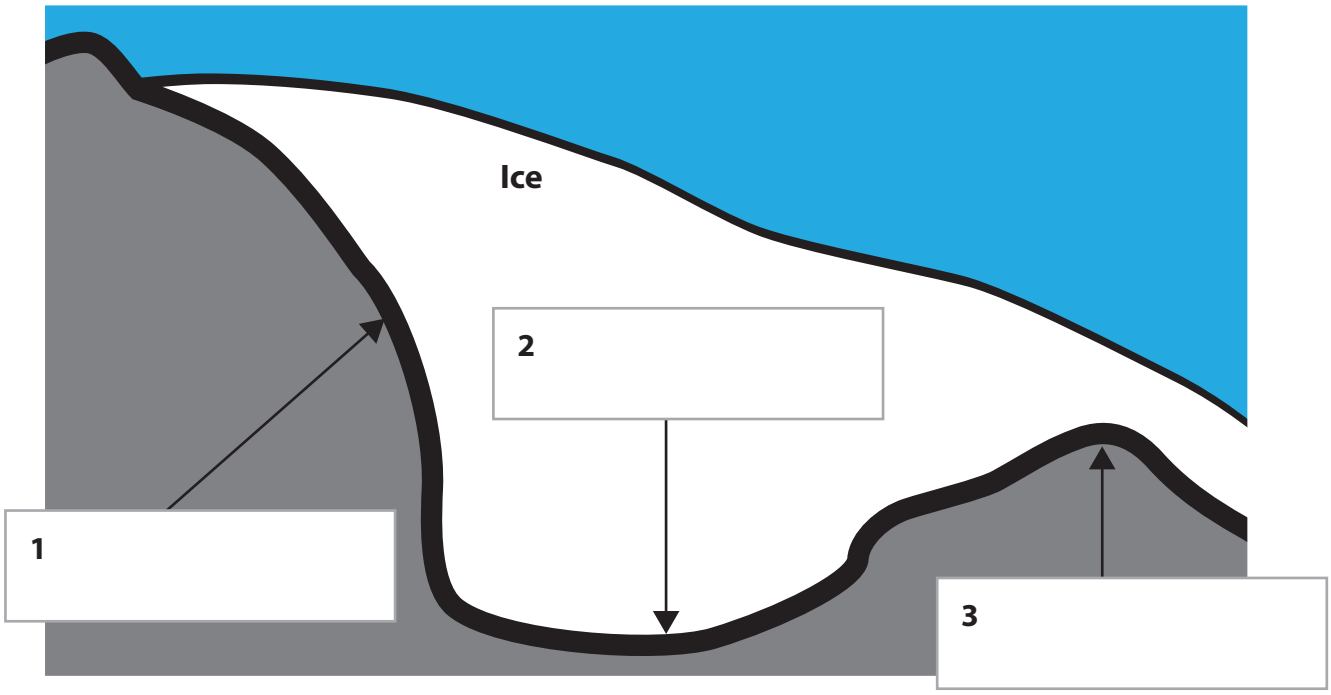


Figure 3b

(b) Look at Figure 3c.

It shows the number of deaths caused by avalanches between 2004 and 2010 in the French Alps.

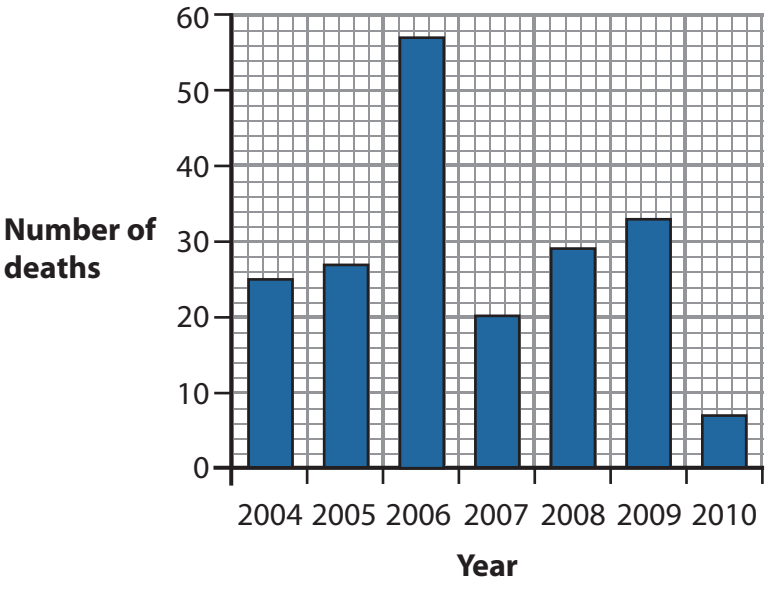


Figure 3c

(i) In which **three** years were the highest number of deaths from avalanches?

(1)

- ☒ **A** 2004, 2005, 2006
- ☒ **B** 2006, 2007, 2008
- ☒ **C** 2006, 2007, 2009
- ☒ **D** 2006, 2008, 2009

(ii) Complete the sentences to describe and explain Figure 3c.

Use some of the words and numbers in the box below.

(5)

highest	**skiing**	**lowest**	**5**	**4**	**37**
30	**ice**	**snow**	**loud**	**quiet**	

The ..... number of deaths occurred in 2006.

In ..... different years the number of deaths was over 20.

The difference between the number of deaths in 2006 and 2007 is

..... .

When layers of ..... sit loosely on top of each other

avalanches can occur.

Avalanches can also be caused by ..... noise.

(iii) Describe the effects of an avalanche on people and the environment.

(4)

(iv) Describe how the effects of avalanches can be reduced by prediction and prevention.

Use examples in your answer.

(4)

(Total for Question 3 = 25 marks)

Topic 4: Tectonic Landscapes

If you answer Question 4 put a cross in this box ☒

4 (a) Look at Figure 4a.

It shows the distribution of some volcanoes around the Pacific Ring of Fire.
Dates have been given for some eruptions.

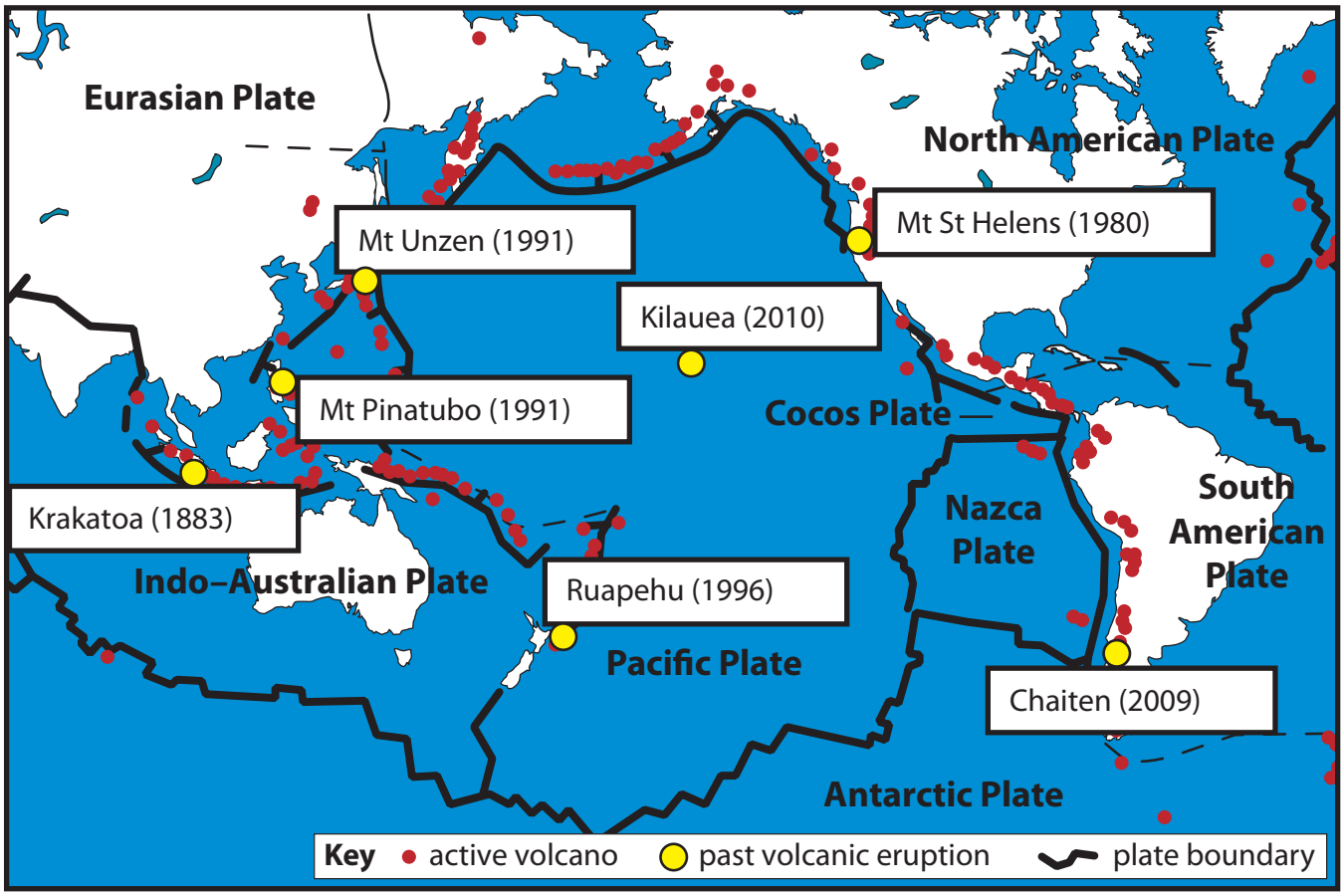


Figure 4a

(i) The dates of seven volcanic eruptions are shown on Figure 4a.

Which **one** occurred before 1950?

(1)

.....

(ii) Describe the distribution of volcanoes shown on Figure 4a.

Use evidence from Figure 4a in your answer.

(3)

(iii) The volcano Kilauea shown on Figure 4a is formed on a

(1)

- ☒ **A** convergent plate boundary
- ☒ **B** hotspot
- ☒ **C** conservative plate boundary
- ☒ **D** divergent plate boundary

(iv) Describe how a volcano forms at a convergent plate boundary.

You may use a diagram in your answer.

(3)

(v) Look at Figure 4b.

It is a sketch of a plate boundary.

Label boxes **1**, **2** and **3** with the correct terms **oceanic plate**, **subduction zone** and **ocean trench**.

(3)

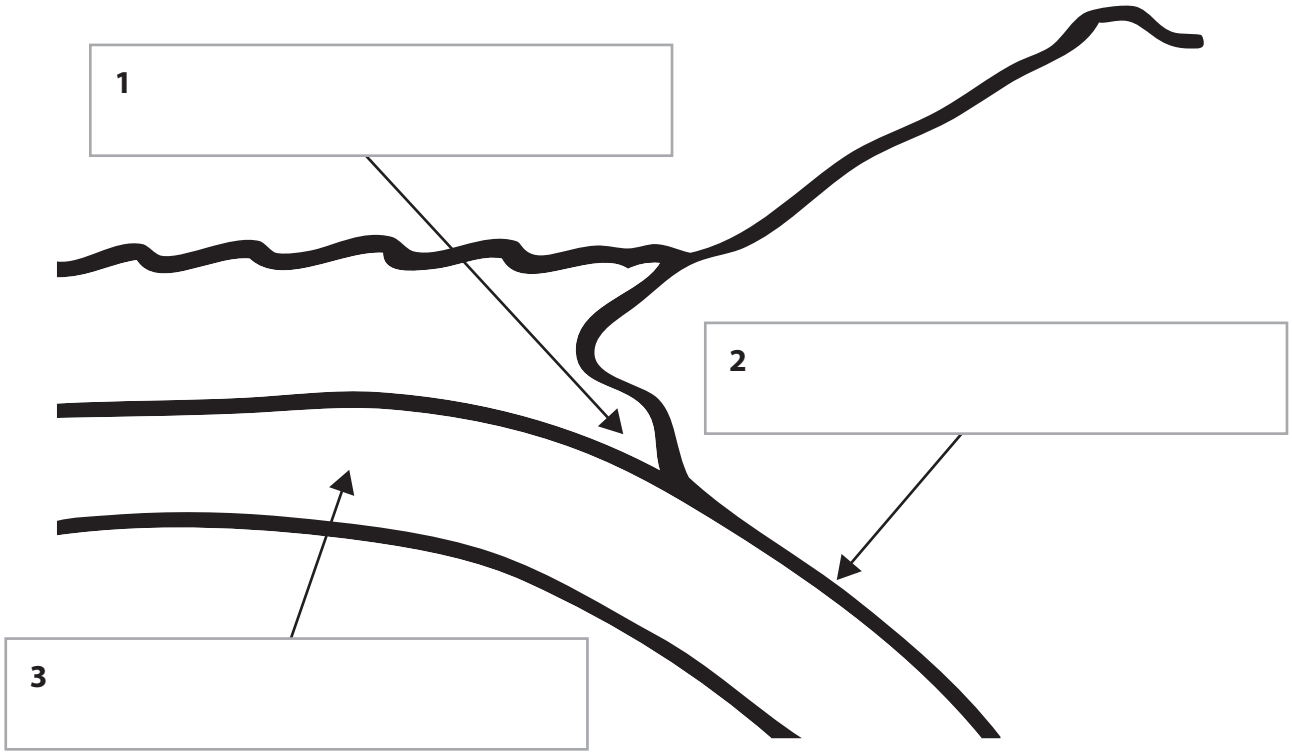


Figure 4b

(b) Look at Figure 4c.

It shows the number of earthquakes greater than magnitude 7 between 2004 and 2010.

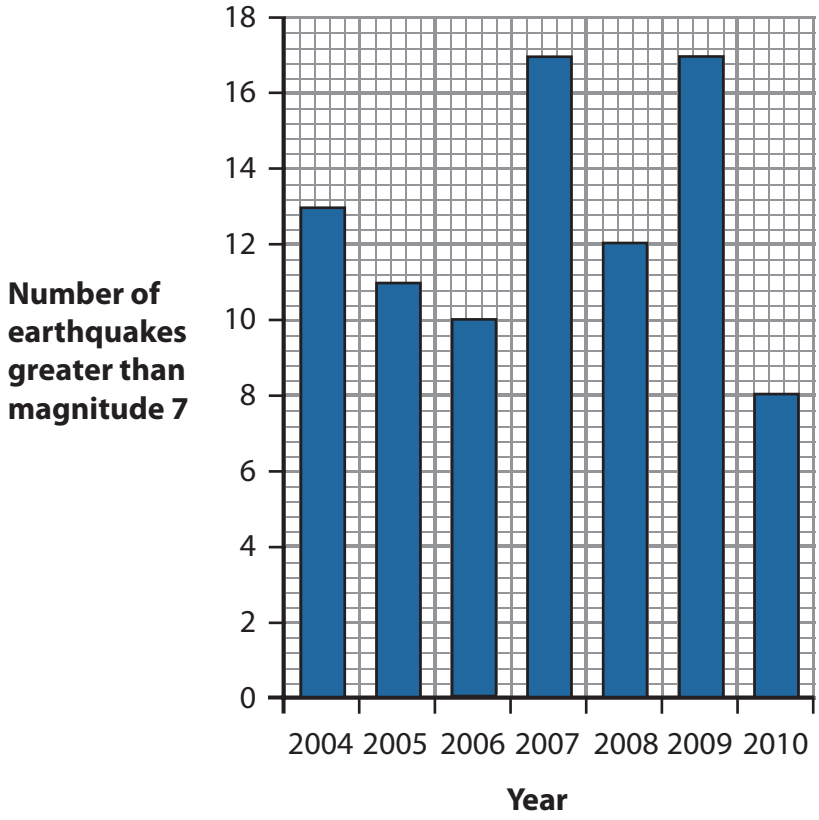


Figure 4c

(i) Which **three** years shown on Figure 4c had the most earthquakes?

(1)

☒ **A** 2004, 2005, 2007

☒ **B** 2004, 2007, 2009

☒ **C** 2007, 2008, 2009

☒ **D** 2007, 2009, 2010

(ii) Complete the sentences to describe and explain Figure 4c.

Use some of the words and numbers in the box below.

(5)

2009	**2010**	**5**	**3**	**9**
10	**scientists**	**buildings**		**boats**

The year with the lowest number of earthquakes was ..... .

There are ..... years with fewer than 14 earthquakes.

The difference between the number of earthquakes in 2009 and 2010 is

..... .

Earthquakes can lead to ..... collapsing.

..... cannot accurately predict when earthquakes will occur.

(iii) Describe why people continue to live in areas affected by earthquakes.

(4)

(c) Describe how the effects of volcanic eruptions can be reduced through prediction and prevention.

Use examples in your answer.

(4)

(Total for Question 4 = 25 marks)

TOTAL FOR SECTION A = 25 MARKS

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Question 5 is on the next page

SECTION B – ENVIRONMENTAL ISSUES

Answer EITHER Question 5 OR Question 6.

Topic 5: A Wasteful World

If you answer Question 5 put a cross in this box ☒

5 (a) Look at Figure 5a.

It shows a carbon footprint for the United Kingdom.

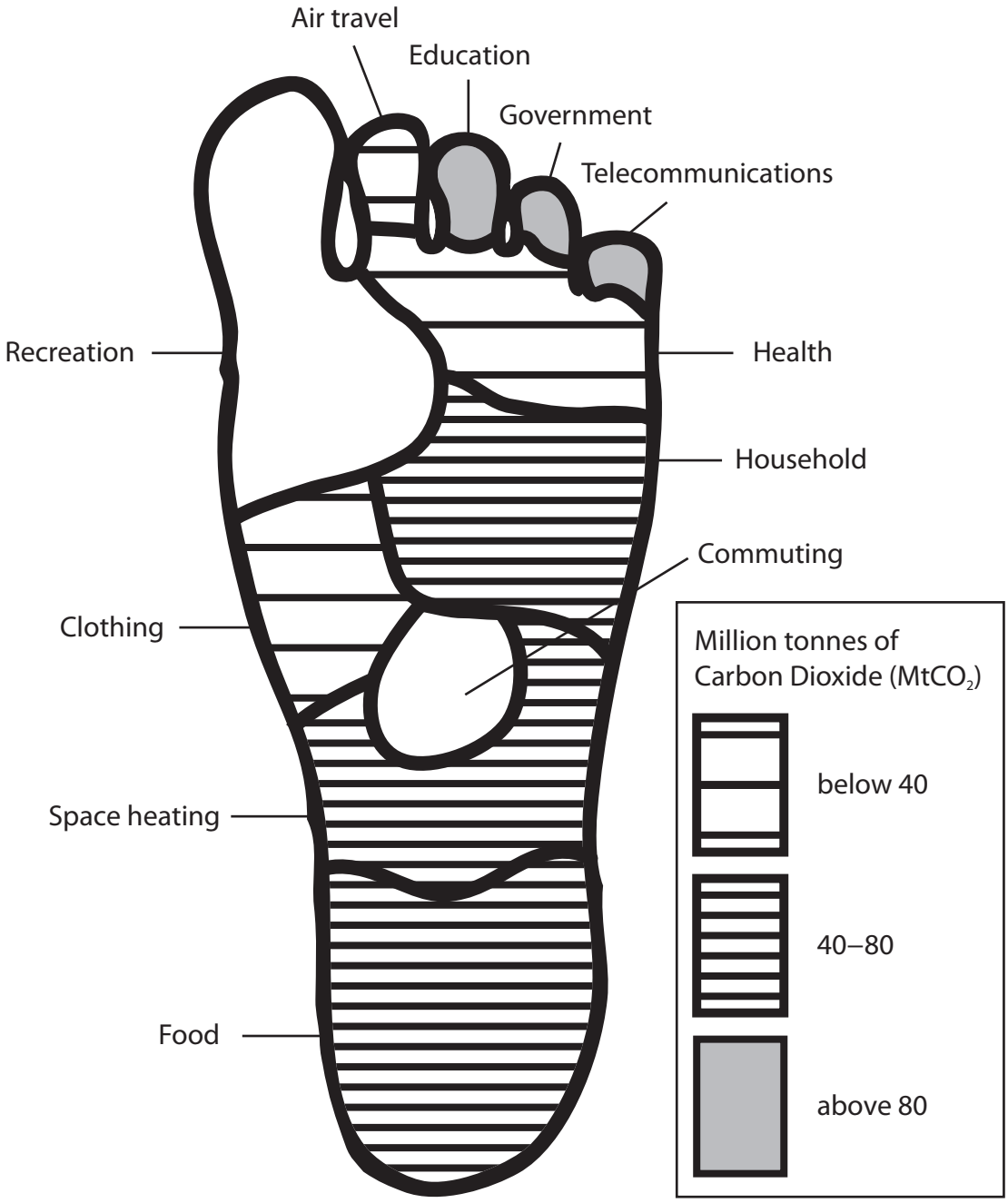

Figure 5a

(i) Complete Figure 5a for recreation and commuting.

Use the data in the table below.

(2)

Activity	$MtCO_2$
Recreation	116
Commuting	48

(ii) Which activity produces between 40 and 80 $MtCO_2$ per year?

(1)

- ☒ **A** food
- ☒ **B** air travel
- ☒ **C** telecommunications
- ☒ **D** education

(iii) Suggest a reason why the value for households in Figure 5a is between 40 and 80 $MtCO_2$.

(1)

- ☒ **A** people use too much heating
- ☒ **B** people eat too much
- ☒ **C** people use their cars too often
- ☒ **D** people have too much free time

(iv) Suggest a reason why the value for food in Figure 5a is between 40 and 80 $MtCO_2$.

(1)

- ☒ **A** people eat too much
- ☒ **B** people go to supermarkets every day in their cars to get food
- ☒ **C** food is flown long distances to reach supermarkets
- ☒ **D** food is from the local area

(v) What is a carbon footprint?

(1)

- ☒ **A** a large footprint made of carbon
- ☒ **B** the amount of carbon used per person
- ☒ **C** the amount of carbon stored in the Earth
- ☒ **D** the amount of carbon dioxide breathed out per person

(vi) Outline how schools and/or homes can reduce the amount of energy that they use.

(4)

(b) Look at Figure 5b.

It shows the amount of waste produced by some High Income Countries (HICs), Middle Income Countries (MICs) and Low Income Countries (LICs).

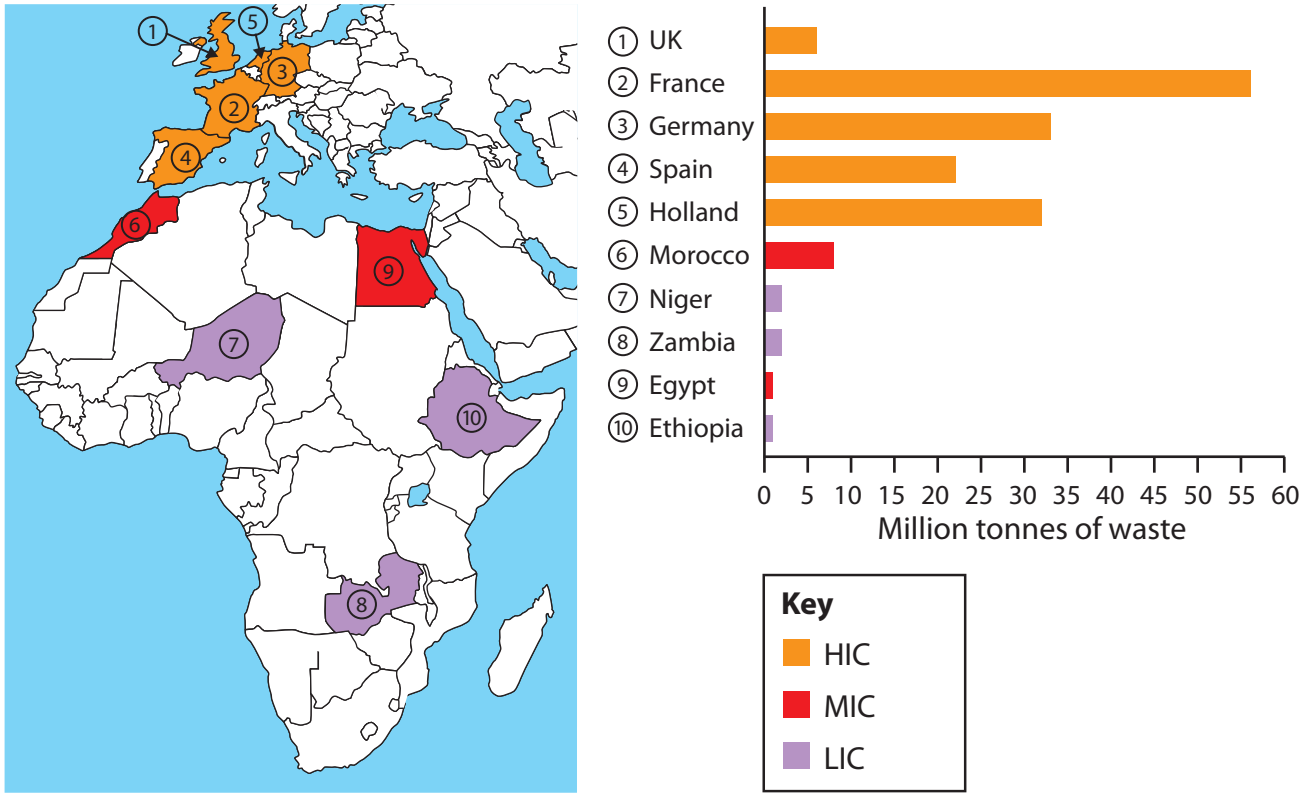

Figure 5b

(i) Which country produces the greatest amount of waste?

(1)

- ☒ **A** Morocco
- ☒ **B** Spain
- ☒ **C** France
- ☒ **D** Niger

(ii) Complete the sentences about Figure 5b.

Use some of the words in the box below.

(5)

HICs	**LICs**	**throw away**	**more**
re-use	**Morocco**	**Niger**	**less**

LICs and MICs generally produce ..... waste than HICs.

The exception to this is ..... .

People in ..... throw away more waste material.

People in ..... generally re-use waste materials.

Recycling is now ..... widely used in HICs to reduce waste.

(iii) HICs are described as 'throw away' societies.

Explain why.

(3)

*(c) Choose **one** study of recycling on a local scale.

Explain how waste is recycled.

(6)

Chosen local study .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(Total for Question 5 = 25 marks)

Topic 6: A Watery World

If you answer Question 6 put a cross in this box ☒

6 (a) Look at Figure 6a.

It is a map showing the percentage of the population with safe drinking water in some High Income Countries (HICs), Middle Income Countries (MICs) and Low Income Countries (LICs).

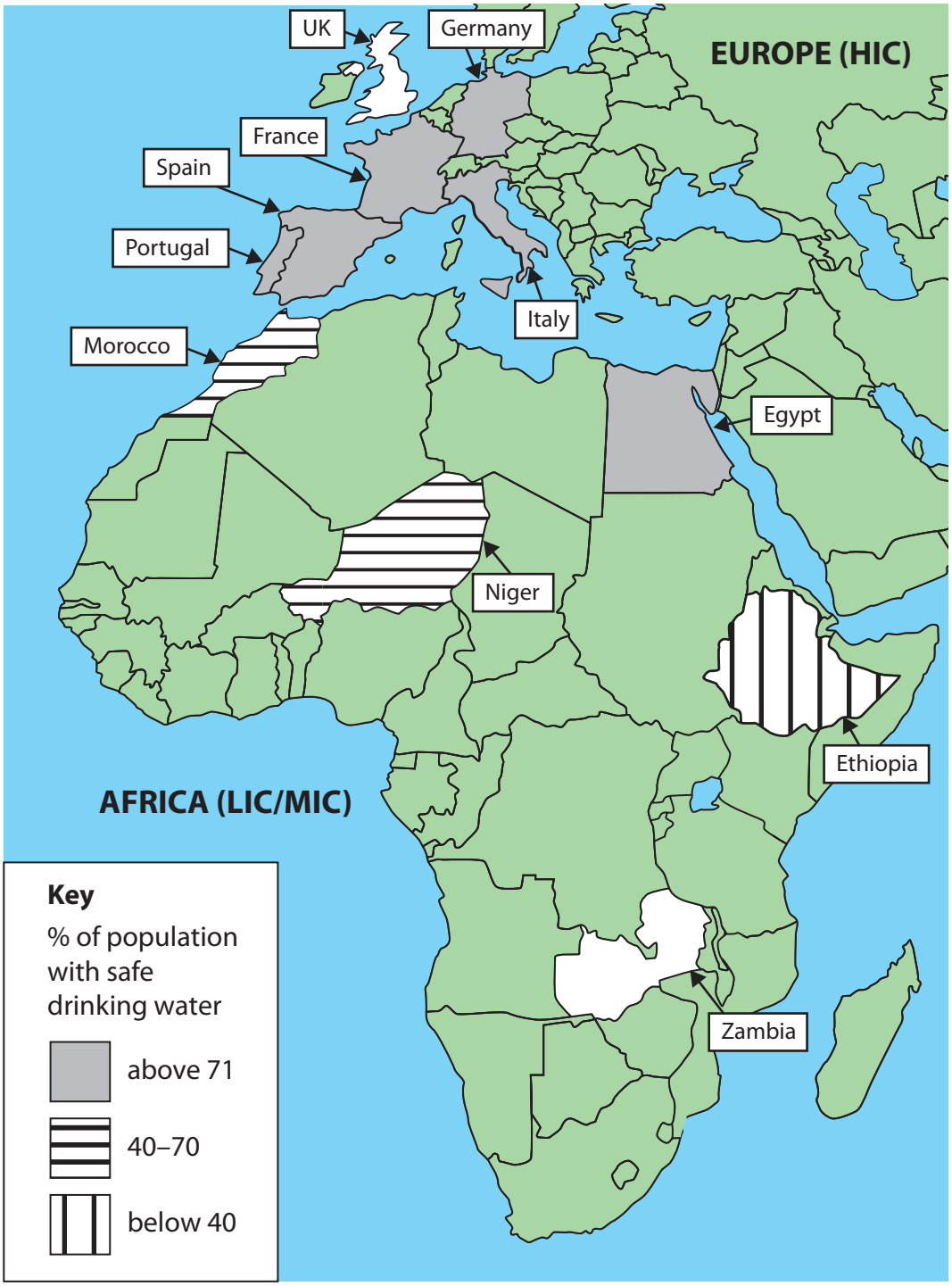

Figure 6a

(i) Complete Figure 6a.

Use the data in the table below.

(2)

Country	Percentage (%) of population with safe drinking water
UK	99
Zambia	48

(ii) Which country has less than 40% access to safe drinking water?

(1)

- ☒ **A** Egypt
- ☒ **B** France
- ☒ **C** Spain
- ☒ **D** Ethiopia

(iii) Complete the sentences to describe and explain Figure 6a.

Use some of the words in the box below.

(5)

long **short** **few** **LICs** **cholera**
AIDs **HICs** **Egypt** **Morocco**

In ..... over 71% of the population have safe drinking water.

A LIC/MIC where over 71% of the population have safe drinking water

is ..... .

Many people in LICs have to travel ..... distances to get

clean water.

This is because ..... villages have piped water.

Some water is contaminated leading to people getting ..... .

(iv) HICs are described as 'showering societies'.

Explain why.

(3)

(b) Look at Figure 6b.

It shows a water management scheme used in Lesotho, Africa.

Figure 6b

(i) Schemes such as that shown in Figure 6b have effects on the environment.

Choose **two** effects on the environment from the list below.

(2)

- ☒ **A** loss of homes due to flooding
- ☒ **B** flooding of the land behind the dam
- ☒ **C** less water downstream for farmers to grow crops
- ☒ **D** loss of animal habitats
- ☒ **E** building of HEP station
- ☒ **F** jobs are created for local people

(ii) One positive effect of building a dam is that

(1)

- ☒ **A** trees are destroyed
- ☒ **B** it costs a lot of money
- ☒ **C** people are forced to move home
- ☒ **D** people are provided with water all year round

(iii) Appropriate technology can be used in LICs to manage water supply.

What is appropriate technology?

(1)

- ☒ **A** building large dams with government money
- ☒ **B** building a desalinisation plant
- ☒ **C** a project managed and built by the local community
- ☒ **D** a project managed and built by a reliable building company

(iv) Outline **two** methods which use appropriate technology to manage water supply in LICs.

(4)

Method 1

Method 2

*(c) Choose a case study of water transfer which has caused conflicts between two or more areas.

Explain how water transfer can cause conflicts.

(6)

Chosen case study .....

(Total for Question 6 = 25 marks)

TOTAL FOR SECTION B = 25 MARKS

TOTAL FOR PAPER = 50 MARKS

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