Write your name here

Surname	Other names

Edexcel GCSE

Centre Number	Candidate Number

Geography A

Unit 2: The Natural Environment

Foundation Tier

Monday 18 June 2012 – Morning **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 ▶

P39946A

6/7/7/7/5

P 3 9 9 4 6 A 0 1 4 4

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 ☒.

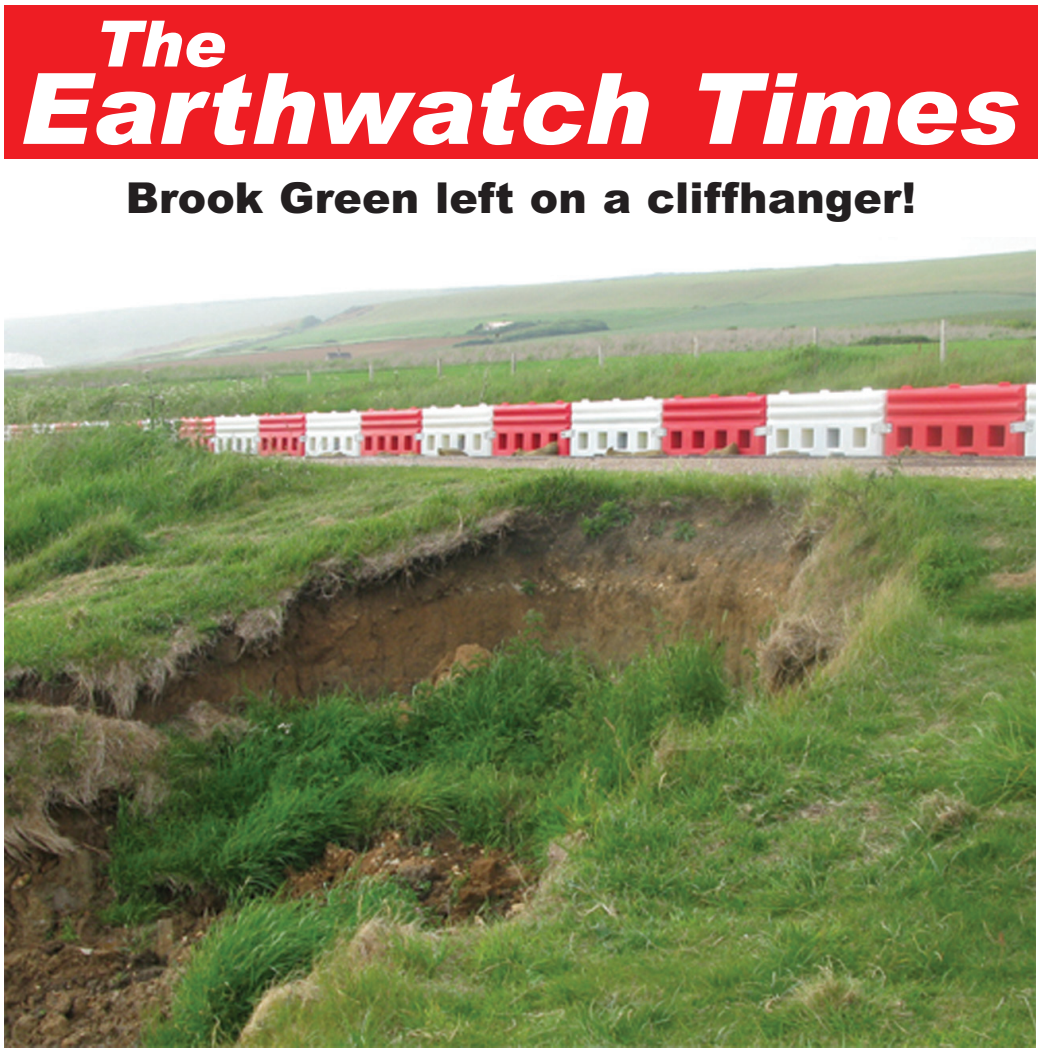
Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Topic 1: Coastal Landscapes

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

1 (a) Look at Figure 1a.

It is a news article about coastal erosion on the Isle of Wight.



Mass movement near Brook Green brought the cliff to 5 metres from the edge of the road. The coastal path was lost and the council has built traffic barriers along the roadside to alert drivers. This mass movement reduced the road to one lane with traffic lights.

Figure 1a

(i) Choose **two** statements from the list below which describe the effects of the mass movement shown in Figure 1a.

(2)

- ☒ **A** the coastal path has collapsed
- ☒ **B** traffic lights have been introduced
- ☒ **C** houses have collapsed into the sea
- ☒ **D** the cliff is now 25 m from the road
- ☒ **E** a sheep was injured falling into the hole
- ☒ **F** people were evacuated from the village of Brook Green

(ii) Complete the sentences about mass movement on the coastline.

Use some of the words in the box below.

(5)

slips	**saturated**	**limestone**	**advance**	**clay**
soil creep	**dry**	**cliff**	**slumping**	

The main process of mass movement shown in Figure 1a

is ..... .

This occurs when the ground becomes ..... .

It is common where the rock underneath is ..... .

Material becomes unstable and ..... down the slope.

It can lead to the rapid retreat of the ..... .

(iii) 1. What is meant by the term **fetch**?

(1)

.....

.....

2. Describe how fetch can affect the rate of coastal recession.

(3)

.....

.....

.....

.....

.....

.....

BLANK PAGE

Question 1 continues on the next page

(b) Look at Figure 1b.

It is a spit.

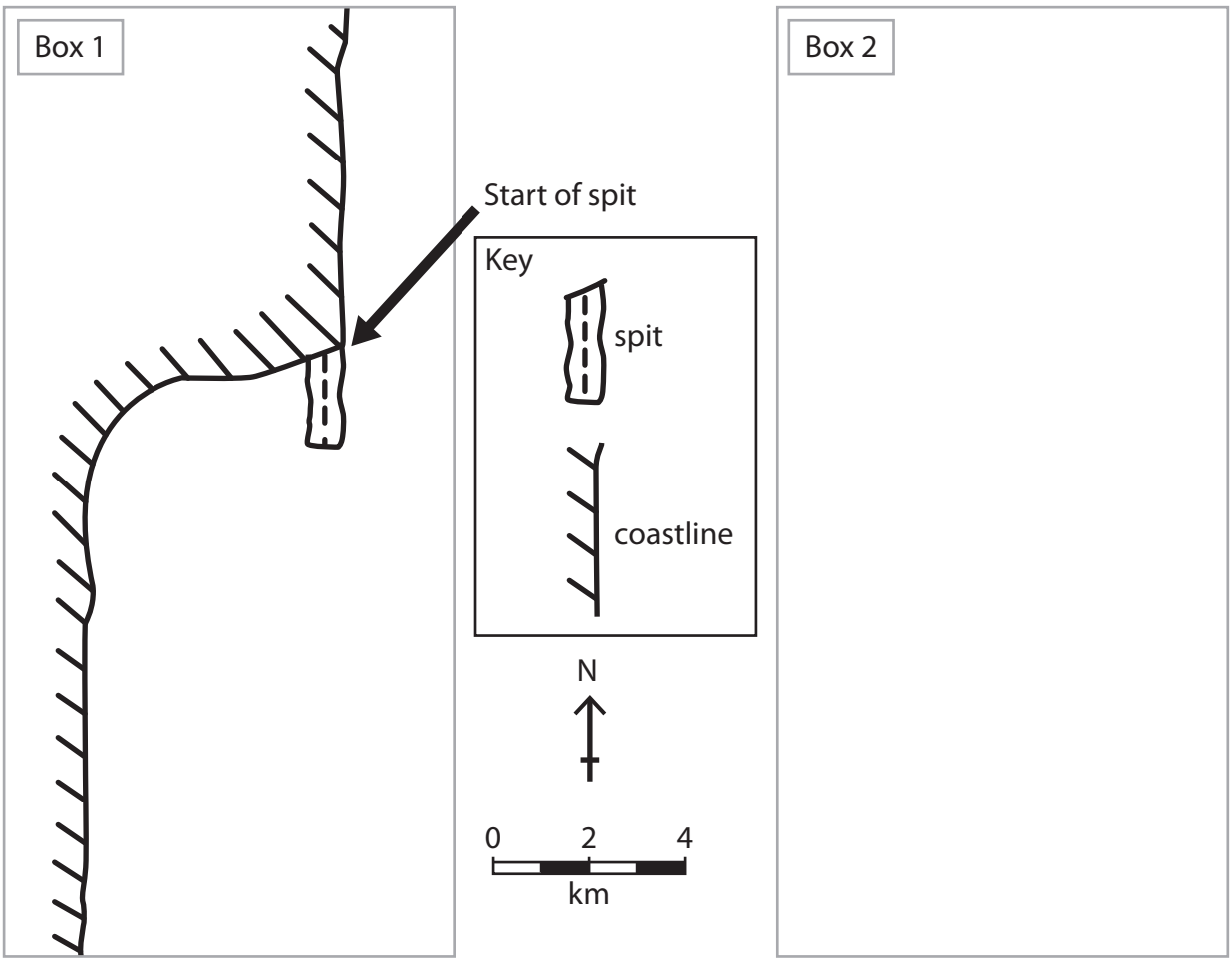


Figure 1b

(i) In which direction is longshore drift moving?

(1)

- ☒ **A** north to south
- ☒ **B** south to north
- ☒ **C** east to west
- ☒ **D** west to east

(ii) How long is the spit in Box 1?

(1)

- ☒ **A** 1 km
- ☒ **B** 2 km
- ☒ **C** 3 km
- ☒ **D** 4 km

(iii) In Box 2 on Figure 1b draw a labelled diagram to show how the spit would change over time.

(3)

(iv) Why do spits form in bays and estuaries?

(1)

- ☒ **A** this is where there are large waves
- ☒ **B** sand is only found in bays
- ☒ **C** the coastline changes direction
- ☒ **D** there are lots of destructive waves here

(c) Outline the formation of a stack.

You may use a diagram(s) in your answer.

(4)

(d) Choose an area of coastline you have studied.

Outline how this area of coastline is being managed.

(4)

Chosen area of coastline .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(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 is a news article about flooding in Pakistan in 2010.

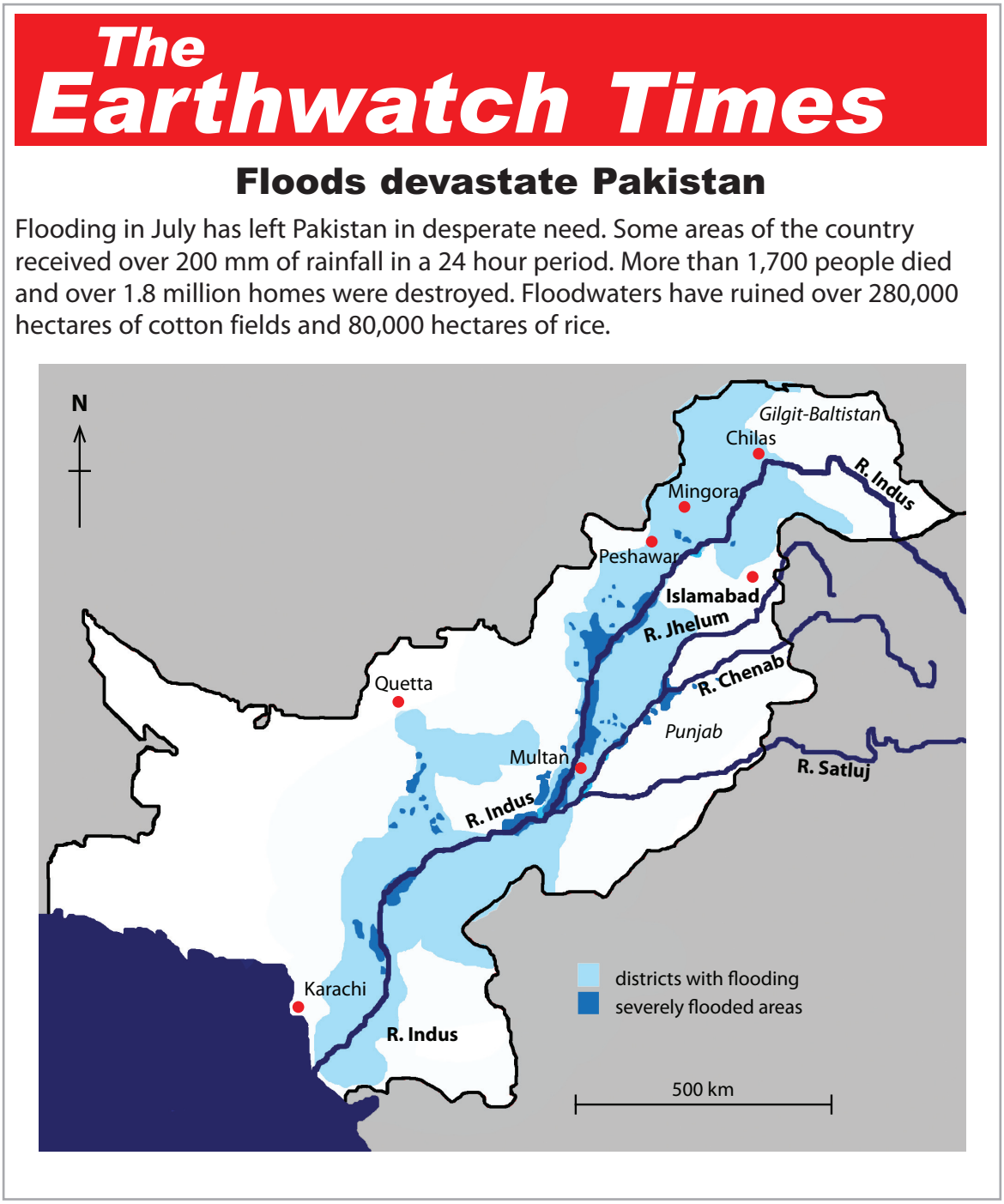


Figure 2a

(i) Choose **two** statements which describe the distribution of flooding in Pakistan shown in Figure 2a.

(2)

- ☒ **A** flooding is equally spread around all the major rivers in Pakistan
- ☒ **B** little flooding occurred around the River Satluj
- ☒ **C** Islamabad was severely flooded
- ☒ **D** most flooding occurred within 500 km of the River Indus
- ☒ **E** Karachi was partly flooded
- ☒ **F** most flooding happened near the coast

(ii) Complete the sentences about the flooding shown in Figure 2a.

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

(5)

200	**less**	**July**	**100**
August	**tourists**	**farmers**	**1.8**

Flooding in Pakistan was caused by ..... mm of rain

which fell in a 24 hour period in ..... .

The number of people who died was ..... than 2000.

More than ..... million homes were destroyed.

The flooding had a major effect on ..... .

(iii) Suggest how the following soft engineering methods can reduce the effects of flooding.

(4)

Flood warning systems

Washlands

BLANK PAGE

Question 2 continues on the next page

(b) Look at Figure 2b.

It is a meander.

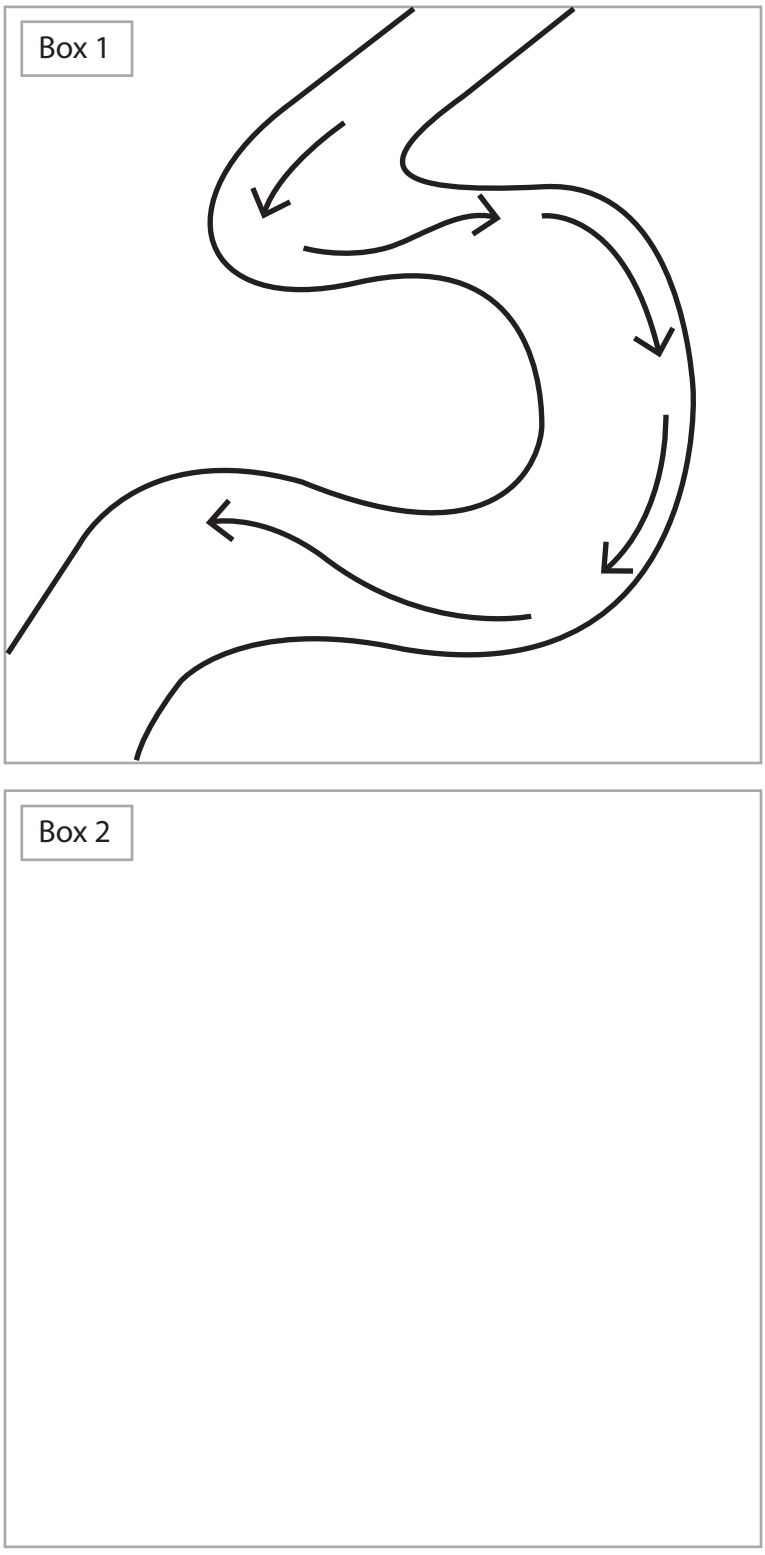


Figure 2b

(i) What do the arrows on Figure 2b show?

(1)

- ☒ **A** the slowest flow
- ☒ **B** areas of deposition
- ☒ **C** the shallowest part of the river
- ☒ **D** the fastest flow

(ii) Which feature of a meander is found on the inside of the bend?

(1)

- ☒ **A** river cliff
- ☒ **B** plunge pool
- ☒ **C** slip-off slope
- ☒ **D** waterfall

(iii) Where does the greatest amount of erosion take place on a meander?

(1)

- ☒ **A** on the inside of a bend
- ☒ **B** on both banks
- ☒ **C** on the river bed
- ☒ **D** on the outside of a bend

(iv) In Box 2 on Figure 2b draw a labelled diagram to show how the meander may change over time.

(3)

(v) Outline the formation of a floodplain and levees.

You may use a diagram(s) in your answer.

(4)

(c) Choose a river that you have studied.

Outline how this river is being managed.

(4)

Chosen river .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(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 is a news article about energy production in Iceland.

The Earthwatch Times

Iceland leads the way to being a greener land

Hydro-electric power station

Geothermal power station

Glaciated landscapes in Iceland are used to produce energy. Hydro-electric power stations are located in remote mountainous areas on large rivers which flow from glaciers. Hydro-electric power provides over 80% of the country's electricity. Geothermal energy provides over 65% of the country's heating and ensures that the streets of Reykjavik are kept snow free. Hydro-electric and geothermal are renewable sources of energy.

Figure 3a

(i) Choose **two** statements which describe why glaciated landscapes in Iceland are used to produce energy. Use Figure 3a to help you.

(2)

☒ **A** hydro-electric power stations are built in cities

☒ **B** it snows a lot in Iceland

☒ **C** there are large rivers in Iceland

☒ **D** hydro-electric power stations are located at the coast

☒ **E** hydro-electric power stations are in remote mountainous areas

☒ **F** it is icy in Iceland

(ii) Complete the sentences to outline the benefits of power stations in the glaciated areas shown in Figure 3a.

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

(5)

65%	**coastal**	**London**	**hydro-electric**	**renewable**
geothermal		**mountainous**	**80%**	**Reykjavik**

Over ..... of Iceland's electricity supply comes from hydro-electric power.

Hydro-electric and geothermal are ..... sources of energy.

The ..... environment provides the ideal location for hydro-electric power stations.

The streets of ..... are kept snow free by using ..... energy.

(iii) The area circled on Figure 3a is ground moraine.

Where is this found?

(1)

☒ **A** on top of the glacier

☒ **B** at the end of a glacier

☒ **C** in the middle of a glacier

☒ **D** underneath a glacier

(iv) Energy production is one way people use glaciated areas.

Describe **other** ways people use glaciated areas.

Use examples in your answer.

(4)

(b) Look at Figure 3b.

It shows a corrie glacier.

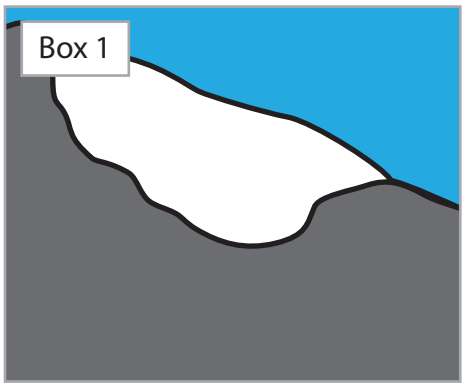


Figure 3b

(i) Erosion occurs on the steep backwall of a corrie.

Which type?

(1)

- ☒ **A** moraine
- ☒ **B** freeze thaw
- ☒ **C** plucking
- ☒ **D** lodgement

(ii) What type of weathering will provide material to the corrie glacier?

(1)

- ☒ **A** biological
- ☒ **B** onion skin
- ☒ **C** chemical
- ☒ **D** freeze thaw

(iii) In Box 2 on Figure 3b draw a labelled diagram, to show how the corrie may change over time.

(3)

(iv) Outline the formation of truncated spurs.

You may use a diagram(s) in your answer.

(4)

(c) Choose an avalanche you have studied.

Outline the effects of this avalanche.

(4)

Chosen avalanche .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(Total for Question 3 = 25 marks)

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

4 (a) Look at Figure 4a.

It is a news article about the 2009 earthquake in L'Aquila, Italy.

The Earthwatch Times

L'Aquila's costly reminder

The 2009 earthquake in L'Aquila, Italy, is a reminder that if you live near active faults you are at risk. The 6.3 Magnitude earthquake was caused by the collision of the Eurasian and African plates. The shaking caused 307 deaths, made over 70 000 people homeless and the cost of the damage was an estimated 4 billion euros. This earthquake showed the need for strict building codes and education for those who live in dangerous tectonic areas.

Figure 4a

(i) Choose **two** statements which describe the causes of the L'Aquila earthquake shown in Figure 4a.

(2)

- ☒ **A** the African and Eurasian plates collided
- ☒ **B** the shaking killed 307 people
- ☒ **C** L'Aquila is near a plate boundary
- ☒ **D** L'Aquila is located in the mountains
- ☒ **E** L'Aquila is not near a plate boundary
- ☒ **F** the African and Eurasian plates are moving apart

(ii) Complete the sentences to describe the problems of poorly constructed housing in earthquake zones.

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

(5)

dangerous	**strict**	**5 billion**	**collapse**
under	**4 billion**	**over**	**safe**

In L'Aquila ..... 70 000 people were made homeless.

The cost of the damage from the earthquake is estimated at

..... euros.

Shaking can cause poorly constructed buildings to .....

Local government must have ..... building codes

to stop this.

Education is important for people who live in .....

tectonic areas.

(b) Give reasons why people continue to live in areas affected by volcanoes.

Use examples in your answer.

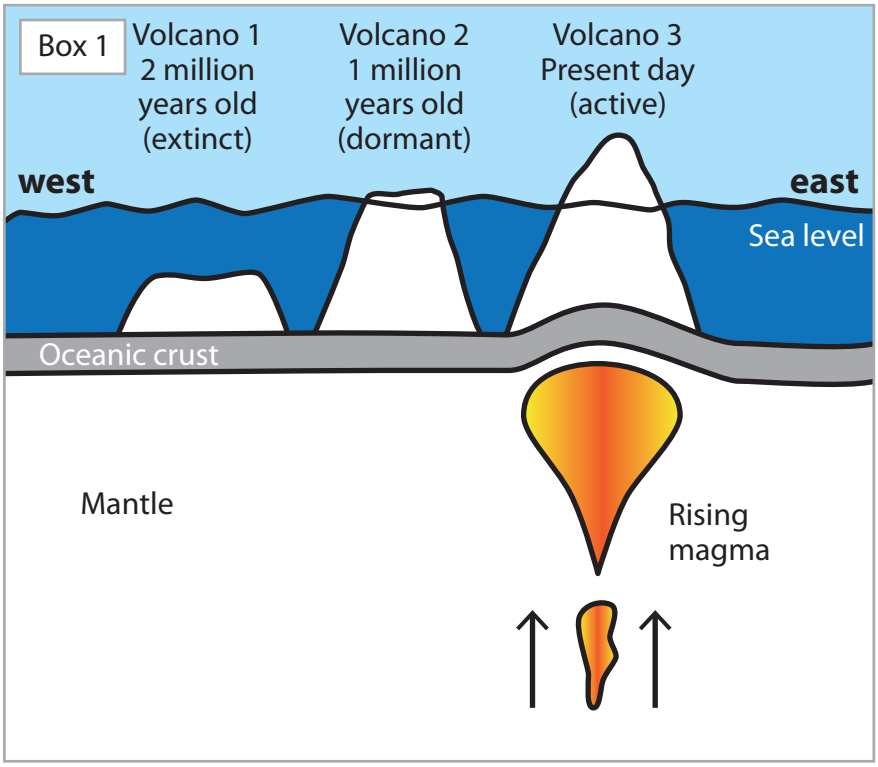
(4)

BLANK PAGE

Question 4 continues on the next page

(c) Look at Figure 4b.

It shows hotspot volcanoes.



Box 2

Figure 4b

(i) The islands in Figure 4b are found on which type of crust?

(1)

- ☒ **A** Continental
- ☒ **B** Granitic
- ☒ **C** Oceanic
- ☒ **D** Island

(ii) In which direction is the plate in Figure 4b moving?

(1)

- ☒ **A** North
- ☒ **B** South
- ☒ **C** East
- ☒ **D** West

(iii) In Box 2 on Figure 4b draw a labelled diagram to show how the chain of islands will change over time.

(3)

(iv) Hotspots are usually found

(1)

- ☒ **A** in the middle of tectonic plates
- ☒ **B** at convergent plate boundaries
- ☒ **C** at divergent plate boundaries
- ☒ **D** at conservative plate boundaries

(d) Outline the characteristic features of a divergent plate boundary.

You may use a diagram(s) in your answer.

(4)

(e) Outline how the effects of earthquakes can be reduced through forecasting and building design.

Use examples in your answer.

(4)

(Total for Question 4 = 25 marks)

TOTAL FOR SECTION A = 25 MARKS

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 the process of recycling and how some recycled material has been used.

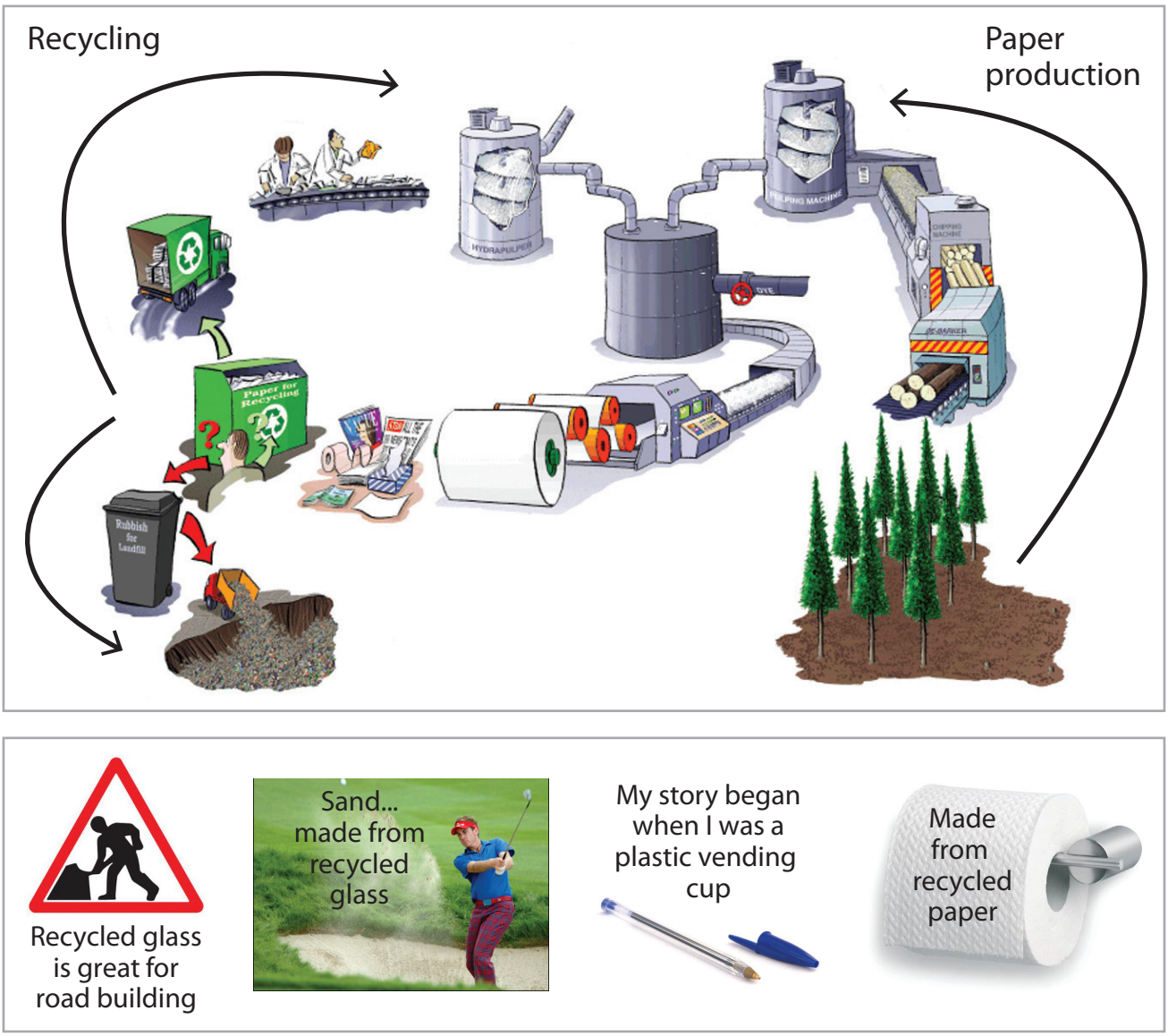


Figure 5a

(i) Choose **two** statements which describe how recycling can help the environment shown in Figure 5a.

(2)

- ☒ **A** more trees will be cut down
- ☒ **B** it reduces landfill
- ☒ **C** it means we can read more magazines
- ☒ **D** recycled paper is less dangerous to wildlife
- ☒ **E** it stops trees being cut down
- ☒ **F** it reduces the amount of money spent on paper

(ii) Complete the sentences to describe how recycled products can be used. Use Figure 5a to help you.

Use some of the words in the box below.

(5)

more	**sand**	**road**	**plastic**
fewer	**edible**	**toilet**	**mud**

Using recycled material means that ..... natural resources are used.

Recycled paper can be used to make ..... paper.

Recycled glass is used for ..... building.

It can also be turned into ..... for golf bunkers.

Pens can be made from recycled ..... cups.

(iii) Choose an example of a local scale recycling scheme you have studied.

Describe how its waste material is recycled.

(4)

Chosen local recycling scheme .....

.....

.....

.....

.....

.....

.....

.....

.....

(b) Look at Figure 5b.

It shows energy use per person in different regions.

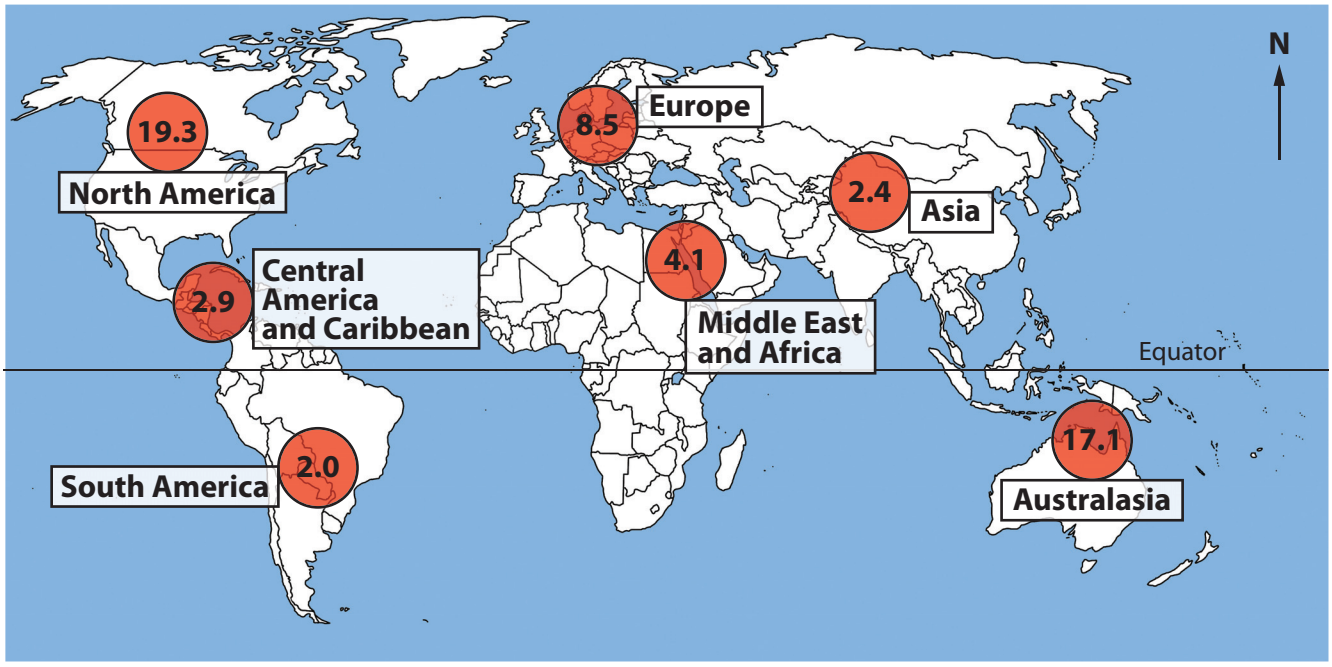


Figure 5b

(i) Which region has the largest energy use per person?

(1)

- ☒ **A** South America
- ☒ **B** Europe
- ☒ **C** Australasia
- ☒ **D** North America

(ii) Which **two** sentences best describe the distribution of energy use per person shown in Figure 5b?

(2)

- ☒ **A** Asia uses more energy than Central America and the Caribbean
- ☒ **B** Europe uses more energy than South America
- ☒ **C** North and South America use a large amount of energy
- ☒ **D** South of the Equator Australasia uses the greatest amount of energy
- ☒ **E** all regions north of the Equator use more energy than those south of the Equator
- ☒ **F** the Middle East and Africa have the lowest energy use

(c) (i) Name a non-renewable fuel.

(1)

.....

(ii) Describe the advantages and disadvantages of renewable energy.

(4)

Advantages

.....

.....

.....

.....

Disadvantages

.....

.....

.....

.....

*(d) Explain how energy wastage in the home (domestic) can be reduced.

(6)

(Total for Question 5 = 25 marks)

BLANK PAGE

Question 6 is on the next page

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 cartoon about water supply problems in Low Income Countries (LICs).

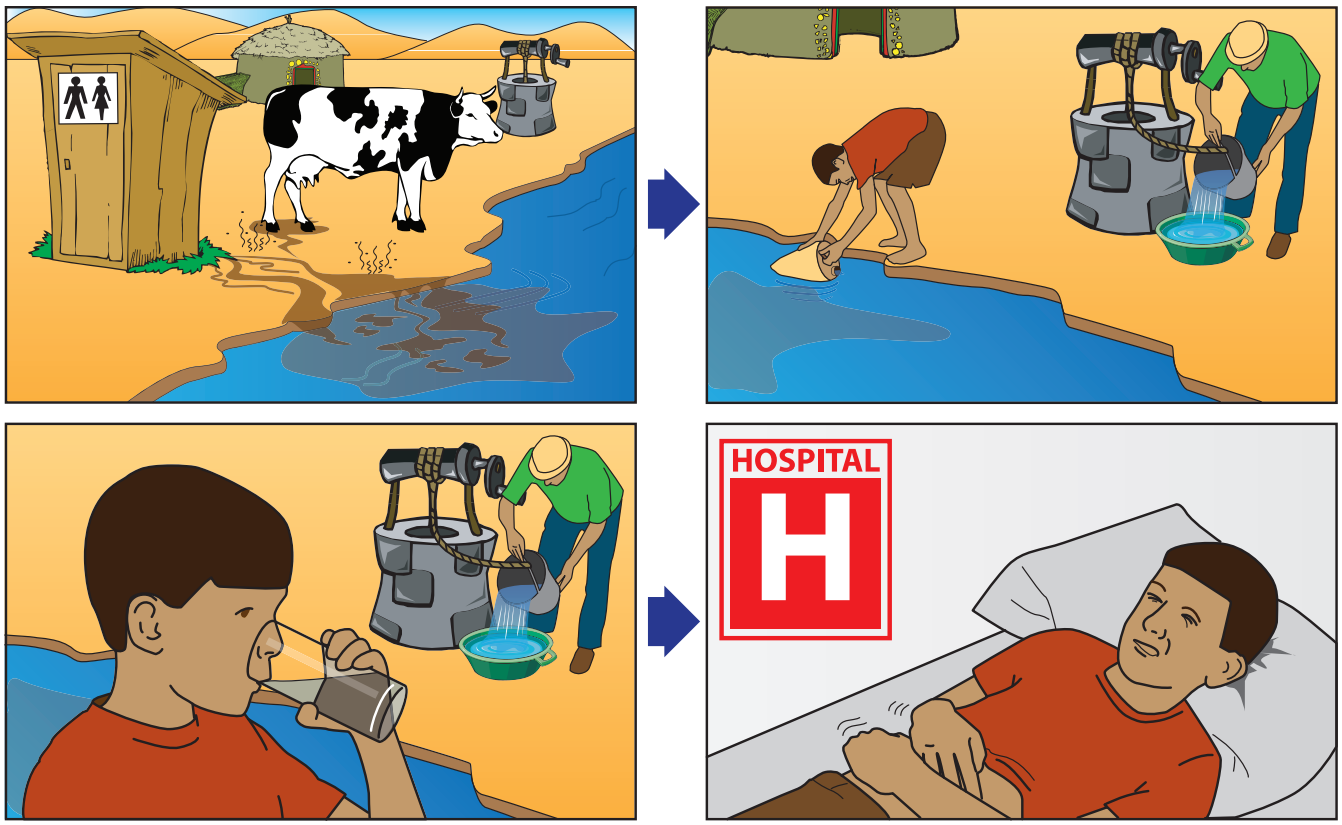


Figure 6a

(i) Choose **two** statements which describe the message given in the cartoon shown in Figure 6a.

(2)

☒ **A** do not go to sleep after a large glass of water

☒ **B** do not take water from dirty rivers

☒ **C** when you have a stomach ache, go to sleep

☒ **D** animals always go to the toilet in rivers

☒ **E** drinking dirty water can make you ill

☒ **F** do not take a large bucket of water to bed with you

(ii) Complete the sentences to describe how piped water can benefit people.

Use some of the words in the box below.

(5)

long	**poor**	**school**	**shops**
cheap	**time**	**short**	**expensive**

Some people who live in LICs may suffer from a ..... water supply.

They may have to travel ..... distances to get clean water.

Piped water in villages would save ..... when fetching water.

This may mean that children can go to ..... instead of fetching water.

However, supplying piped water to remote villages can be ..... .

(iii) Describe how appropriate technology can improve water supply in small communities.

Use examples in your answer.

(4)

.....

.....

.....

.....

.....

.....

.....

.....

(b) Look at Figure 6b.

It shows water surplus and deficit areas in Spain, a High Income Country (HIC).

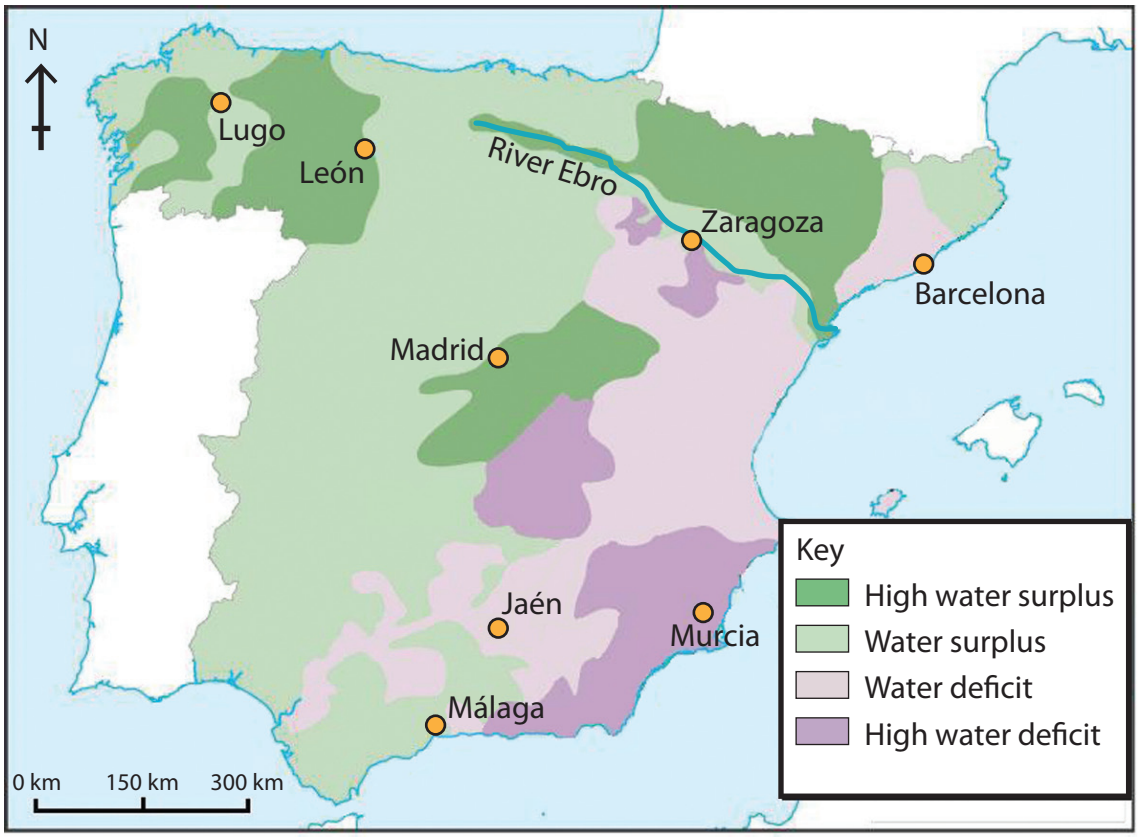


Figure 6b

(i) Which **one** of the following cities is in an area of high water deficit?

(1)

- ☒ **A** León
- ☒ **B** Barcelona
- ☒ **C** Madrid
- ☒ **D** Murcia

(ii) Choose **two** sentences which best describe the distribution of water surplus and deficit in Spain shown in Figure 6b.

(2)

- ☒ **A** water deficits are mainly found in the east of Spain
- ☒ **B** the highest water surplus areas are all on the coast
- ☒ **C** all areas close to the River Ebro have a water deficit
- ☒ **D** water surpluses are found in the north-west of Spain
- ☒ **E** the south coast of Spain is an area of water deficit
- ☒ **F** Madrid is in an area of high water deficit

(c) (i) Name a local scale source of water.

(1)

.....

(ii) Describe how the demands of the leisure and tourism industry can lead to water shortages in High Income Countries.

(4)

.....

.....

.....

.....

.....

.....

.....

.....

*(d) Choose a water management scheme you have studied.

Explain the positive and negative effects (impacts) of this scheme on people.

(6)

Chosen scheme .....

(Total for Question 6 = 25 marks)

TOTAL FOR SECTION B = 25 MARKS
TOTAL FOR PAPER = 50 MARKS

BLANK PAGE

BLANK PAGE