

Write your name here

Surname

Other names

Centre Number

Candidate Number

Edexcel GCSE

Geography A

Unit 2: The Natural Environment

Foundation Tier

Thursday 17 June 2010 – Afternoon

Time: 1 hour

Paper Reference

5GA2F/01

You must have:

Resource Booklet (enclosed)

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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SECTION A – THE PHYSICAL WORLD

Answer only ONE question from Section A.

Indicate which question you are answering by marking a cross . If you change your mind, put a line through the box and then indicate your new question 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 an area of coast at Freshwater, Isle of Wight.

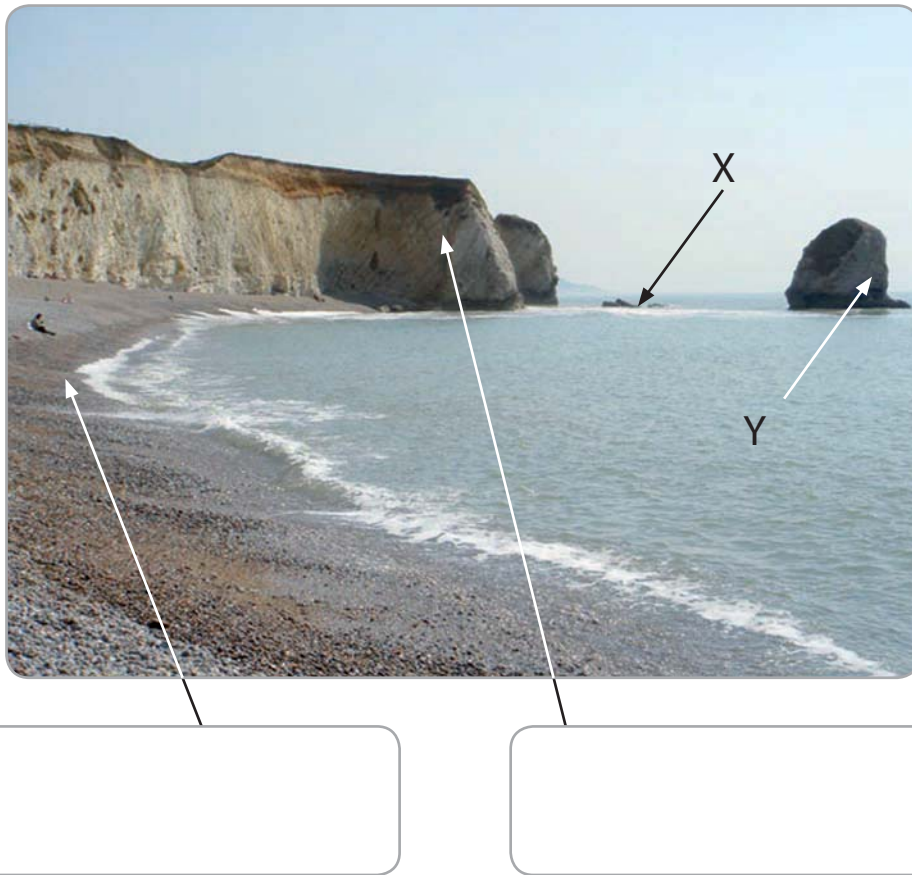


Figure 1a

- (i) Name landform Y.

(1)

- A arch
- B cave
- C wave-cut platform
- D stack



(ii) Label the landforms **Headland** and **Bay** in the correct boxes on Figure 1a. (1)

(iii) This area has been affected by hydraulic action.

What is hydraulic action? (1)

- A** when waves throw pebbles against the cliff
- B** when the pebbles are smoothed by the action of the waves
- C** when chemicals in the sea react with the cliff
- D** when waves compress air into cracks in the cliff

(iv) Landform **X** is a stump.

What is the correct sequence for the formation of a stump? (1)

- A** cave, stack, arch, stump
- B** stack, cave, arch, stump
- C** arch, cave, stack, stump
- D** cave, arch, stack, stump

(v) Describe the main features of the cliffs and beach shown in Figure 1a. (3)

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(b) Look at Figure 1b in the Resource Booklet. It shows coastal recession on a small section of the Holderness coastline.

(i) What process of mass movement has occurred here? (1)

- A slumping
- B soil creep
- C attrition
- D corrosion

(ii) Name one effect shown on Figure 1b? (1)

- A loss of farm buildings
- B loss of hotel
- C damaged roads
- D loss of wildlife

(iii) The rate at which a cliff recedes can be affected by a number of factors.

Complete the sentences below to explain the factors which cause cliffs to recede.

Use some of the words in the box below.

(5)

more fetch softer less harder sea some

If a cliff is made from hard rocks it will be likely to erode.

Headlands are formed from rocks which are more resistant.

Bays are formed where there are rocks.

Another factor affecting cliff recession is the distance that wind travels over

open water. This is known as the

The greater the distance the stronger the waves causing erosion.



(iv) Soft engineering could be used to protect the area shown in Figure 1b.

What are the advantages and disadvantages of soft engineering?

(4)

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(c) Outline how coastal flooding can be reduced through planning and forecasting.

(3)

Planning

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Forecasting

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

Describe how this area of coastline has been managed.

(4)

Chosen area

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(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 a meander from above and as a cross-section.

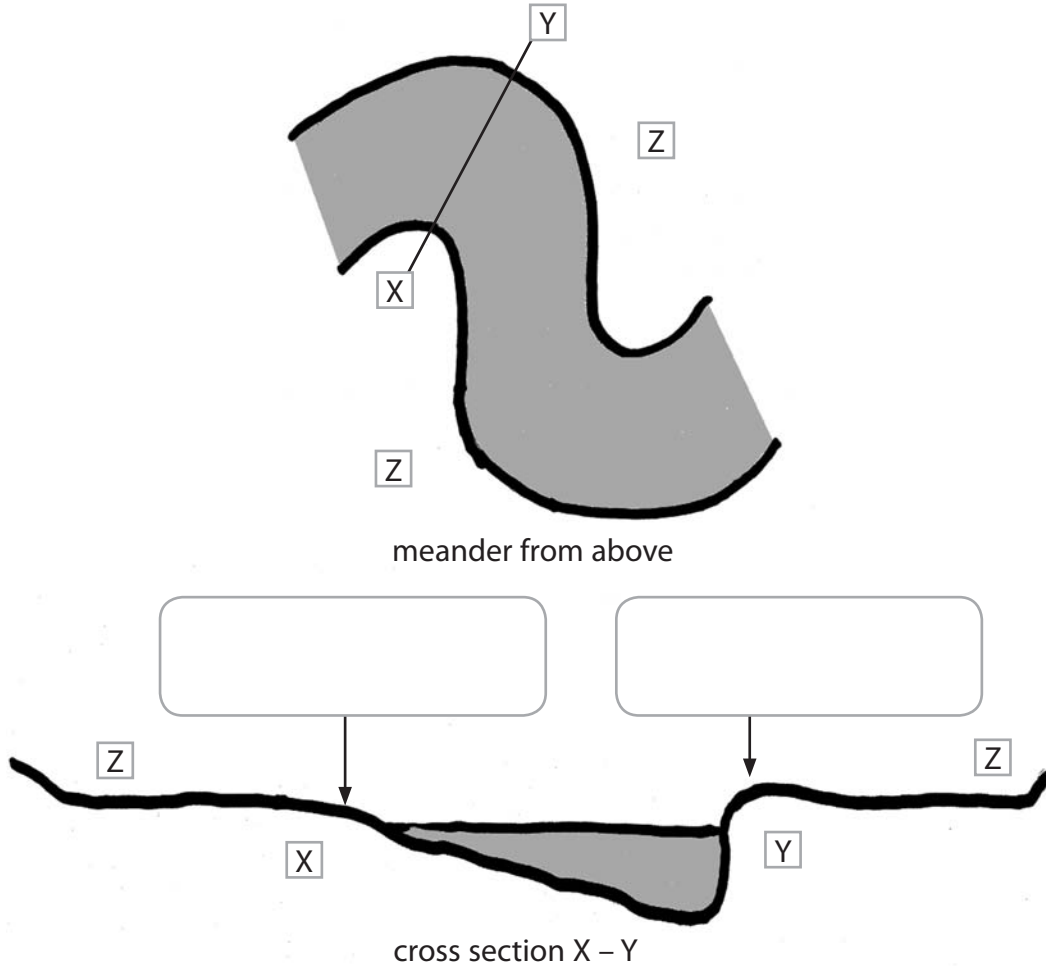


Figure 2a

(i) Name landform **Z** which is an area of land next to the river.

(1)

- A** waterfall
- B** mouth
- C** floodplain
- D** interlocking spur

(ii) Points **X** and **Y** show a cross-section through the meander.

Label the **inside bend** and the **outside bend** in the boxes provided on Figure 2a.

(1)



(iii) One process occurring in this river is hydraulic action.

What is hydraulic action?

(1)

- A** when the river throws stones against the river bank
- B** when stones are smoothed by the action of the river
- C** when chemicals in the water react with the river bank
- D** when the pressure of the water is pushed against the river banks

(iv) Meanders can develop into

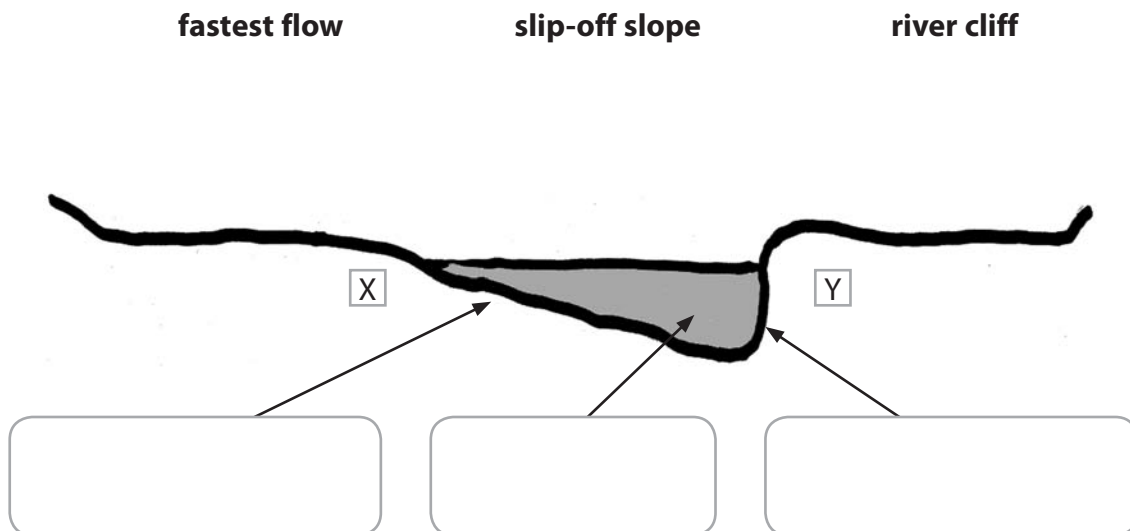
(1)

- A** waterfalls
- B** levees
- C** interlocking spurs
- D** ox-bow lakes

(v) Label the main features of a meander onto the cross-section below (Figure 2b).

Use the following words to help you.

(3)



(b) Look at Figure 2c in the Resource Booklet. It shows an area affected by flooding in a Low Income Country (LIC).

(i) What feature is labelled at Point **S**?

(1)

- A** river
- B** floodplain
- C** watershed
- D** source

(ii) One effect of recent flooding shown on Figure 2c is

(1)

- A** loss of life
- B** property damage
- C** fallen trees
- D** fallen electricity pylons

(iii) Soft engineering could be used to protect the area shown in Figure 2c.

What are the advantages and disadvantages of soft engineering?

(4)

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(iv) Complete the sentences below to explain how flooding can be caused by physical factors.

Use some of the words in the box below.

(5)

steep impermeable soak heavy overflows soft gentle

Flooding occurs when the river its banks.

One of the main causes of flooding is rainfall.

If the valley sides are , water flows quickly into the river.

Another cause of flooding is rock because water cannot into the ground.

(c) Outline how planning and building design can reduce the effects of flooding.

(3)

Planning

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Building design

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(d) Choose a river you have studied.

Describe how this river has been managed.

(4)

Chosen river

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(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 (photograph) in the Resource Booklet. It shows a drumlin in Ireland.

(i) Which process is responsible for its formation?

(1)

- A deposition
- B erosion
- C snowing
- D melting

(ii) Figure 3b below is a sketch of Figure 3a.

Draw an arrow on Figure 3b to show the direction of ice movement.

(1)

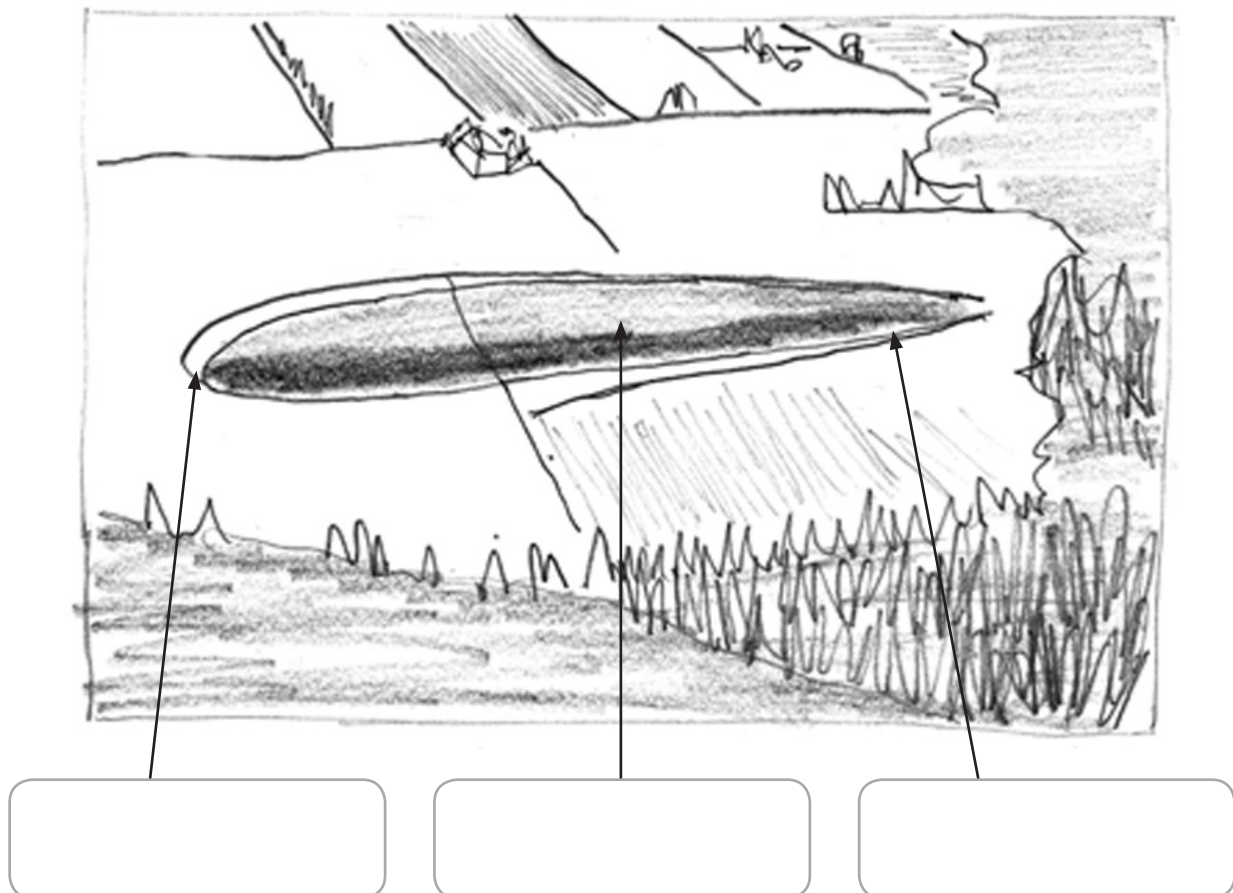


Figure 3b



(iii) Label the main features of a drumlin on Figure 3b in the boxes provided.

Use the words below.

(3)

lee slope

moraine

stoss end

(iv) A depositional landform found in glaciated areas is

(1)

- A** a hanging valley
- B** an arête
- C** an erratic
- D** a corrie lake

(b) Look at Figure 3c (photograph) in the Resource Booklet. It shows a glaciated upland in Iceland.

(i) Landform **X** is

(1)

- A** an arête
- B** a drumlin
- C** an erratic
- D** a corrie

(ii) One characteristic feature of landform **X** is

(1)

- A** layers of deposition
- B** lateral moraine
- C** armchair-shaped hollow
- D** soft rock

(iii) Landform **Y** is a knife-edged ridge.

Which glacial landform is this?

(1)

- A** arête
- B** U-shaped valley
- C** hanging valley
- D** drumlin



(iv) Suggest which human activities could take place in glaciated areas such as shown in Figure 3c?

(4)

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(v) Landform **Z** is a U-shaped valley.

Complete the sentences below to explain the main features of a U-shaped valley.

Use some of the words in the box below.

(5)

ice	water	flat	steep
hanging valleys	V-shaped valleys	erodes	

A U-shaped valley is formed by the movement of

As the glacier moves down the valley it the sides.

This creates the main characteristics of a U-shaped valley which are a

..... bottom and sides.

Two landforms associated with a U-shaped valley are truncated spurs

and



(c) Outline how planning and defences enable people to reduce the effects of avalanches.

(3)

Planning

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Defences

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(d) Choose an avalanche you have studied.

Describe the effects of the avalanche on the local people and the environment.

(4)

Chosen study

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(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 a plate boundary.

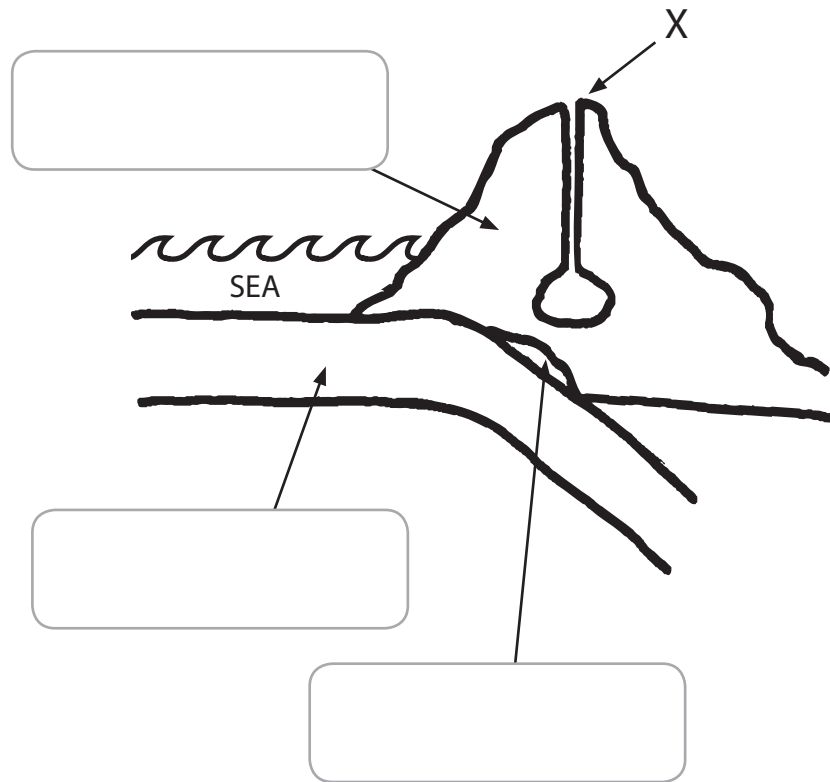


Figure 4a

(i) What type of plate boundary is shown in Figure 4a.

(1)

- A convergent
- B conservative
- C hotspot
- D divergent

(ii) Draw arrows on Figure 4a to show the direction of plate movement.

(1)



(iii) Name landform **X** on Figure 4a.

(1)

- A** continental crust
- B** oceanic crust
- C** deep sea trench
- D** volcano

(iv) Label the features of the plate boundary on Figure 4a in the boxes provided.

Use the words below.

(3)

melting crust

fold mountain

oceanic crust

(b) Look at Figure 4b (photograph) in the Resource Booklet. It shows an area of Kobe affected by an earthquake.

(i) One effect of the earthquake shown on Figure 4b is

(1)

- A** many deaths
- B** a collapsed motorway
- C** many collapsed buildings
- D** exploding gas pipes

(ii) Why is the area shown potentially dangerous in an earthquake?

(1)

- A** many people drive
- B** tightly packed buildings
- C** the trees on the street could fall down
- D** everybody is poorly educated



(iii) Suggest why many of the buildings in Figure 4b did not fall down in the earthquake.

(3)

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(iv) The area shown in Figure 4b was near the epicentre of the earthquake.

What is the epicentre?

(1)

- A** the centre of the town
- B** the point of least damage
- C** the name of a nearby volcano
- D** the point of most damage

(v) Complete the sentences to describe the different methods of measuring earthquakes.

Use some of the words in the box below.

(5)

Richter	Mercalli	damage	forecasting
surface	origin	education	end

As earthquakes reach the they can be measured in two main ways.

The scale measures the strength of an earthquake.

An earthquake with large amounts of shaking can cause lots of

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The scale which measures this is the scale.

People with a good are often prepared for the earthquakes.



(c) Outline **two** reasons why people continue to live in areas affected by volcanic eruptions.

(4)

1

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(d) Choose a volcanic eruption or an earthquake you have studied.

Describe the effects of the eruption or the earthquake on the people and the environment.

(4)

Chosen study

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(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 amount of household waste per person for selected years.

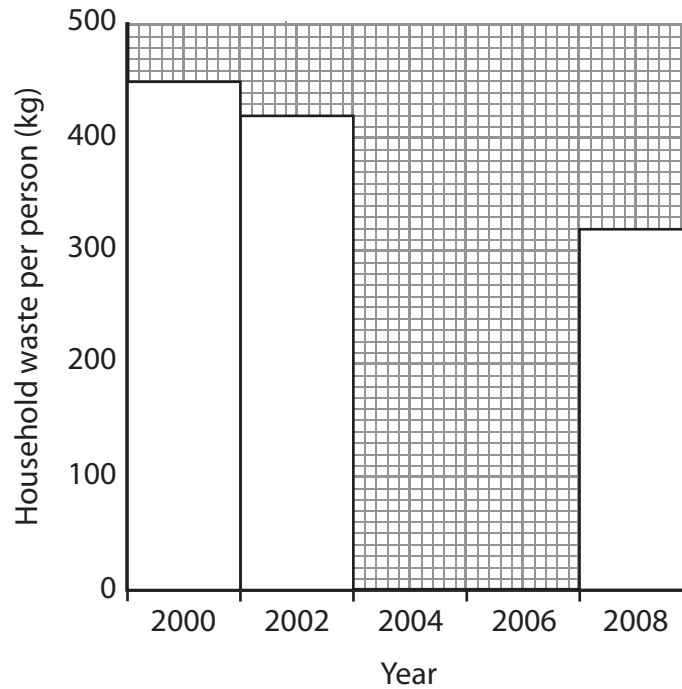


Figure 5a

- (i) Complete Figure 5a.

Use the data in the table below.

(2)

Year	Household waste per person (kg)
2004	370
2006	350

- (ii) Which year has the lowest amount of household waste per person?

(1)

- A** 2000
- B** 2004
- C** 2006
- D** 2008



(iii) Name a type of household waste.

(1)

- A** nuclear waste
- B** toxic waste
- C** food waste
- D** industrial waste

(iv) The amount of household waste shown on Figure 5a is for a person living in a High Income Country (HIC).

Suggest why.

(2)

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(b) Look at Figure 5b (map) in the Resource Booklet. It shows energy use by countries in Europe.

(i) UK energy use is in

(1)

- A** a deficit
- B** a surplus
- C** balance
- D** credit

(ii) How many countries in Europe have an energy balance?

(1)

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



(iii) Describe the distribution of energy use in Europe shown on Figure 5b.

Use evidence from the map in your answer.

(3)

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(iv) An energy deficit is when countries

(1)

- A** produce as much energy as they use
- B** use more energy than they produce
- C** produce more energy than they use
- D** sell all of the energy they produce

(v) Complete the sentences to explain the advantages and disadvantages of non-renewable energy.

Use some of the words in the box below.

(5)

coal	damage	carbon dioxide	nuclear
oxygen	danger	help	

Non-renewable energy comes from fossil fuels such as and oil.

These fuels are extracted from the ground which can cause to the environment.

Burning fossil fuels give off which can lead to global warming.

Another source of non-renewable fuel is energy.

When this energy is produced, the waste can be a to people and the environment.



(c) Outline **two** solutions to domestic energy wastage.

(4)

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*(d) Choose a High Income Country (HIC) you have studied.

Describe how it disposes of different types of waste.

(4)

Chosen HIC

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(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 shows household water use in the UK.

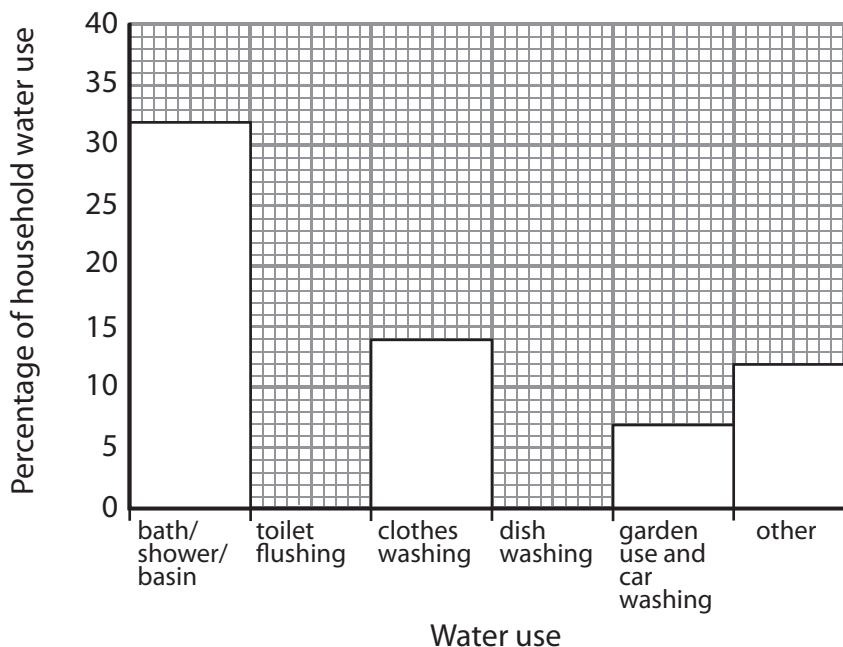


Figure 6a

(i) Complete the bar chart for toilet flushing and dishwashing (Figure 6a). Use data in the table below.

(2)

Household water use	%
Toilet flushing	25
Dishwashing	8

(ii) Name one **other** type of household water use not shown on Figure 6a.

(1)

(iii) The percentages of household water use in Figure 6a are for people living in a HIC.

Suggest why.

(2)



(iv) How can water be used in agriculture in a High Income Country (HIC)?

(1)

- A** washing cars
- B** washing clothes
- C** irrigating crops
- D** filling swimming pools

(b) Look at Figure 6b in the Resource Booklet. It shows a map of rainfall distribution in Great Britain for winter 2009.

(i) Which region has the highest amount of rainfall?

(1)

- A** South east
- B** North east
- C** South west
- D** North west

(ii) How much rainfall does the Midlands region have?

(1)

- A** less than 190mm
- B** between 190–230mm
- C** between 231–270mm
- D** more than 270mm

(iii) Describe the distribution of rainfall in Great Britain shown on Figure 6b.

Use rainfall data in your answer.

(3)

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(iv) There is a water imbalance between the north and the south of England because of the

(1)

- A large population in the south
- B large population in the north
- C high rainfall throughout the year in the south
- D low rainfall throughout the year in the north

(c) (i) Complete the sentences to explain how water can be obtained from a variety of sources.

Use some of the words in the box below.

(5)

reservoir surface ground aquifer borehole on pipeline

One source of water is from rocks under the

This source is an

A is sunk into the ground and water is pumped to the

Water is then held in a on the surface.

(ii) Outline **two** water supply problems in Low Income Countries (LIC).

(4)

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