OXFORD
INTERNATIONAL
AQA EXAMINATIONS

Please write clearly in block capitals.

Centre number | | | | | | Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____
I declare this is my own work.

INTERNATIONAL GCSE
GEOGRAPHY

Paper 1 Living with the Physical Environment

Friday 29 October 2021 07:00 GMT Time allowed: 1 hour 30 minutes

Materials
For this paper you must have:
- a ruler with millimetre measurements
- a calculator, which you are expected to use where appropriate.

Instructions
- Use black ink or black ball-point pen.
- Fill in the boxes at the top of the page.
- Answer **all** questions in **Sections A**, **B** and **C**.
- Answer **one** question from **Section D**, **either Question 4 or Question 5**.
- You must answer the questions in the spaces provided.
  Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- All working must be shown.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information
- The maximum mark for this paper is 80.
- The marks for questions are shown in brackets.
- You may use a bilingual dictionary for this exam.
- You may **not** use an English dictionary.

For Examiner's Use	
Question	Mark
1	
2	
3	
4	
5	
TOTAL	

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Section A – The challenge of natural hazards

Answer **all** questions in the spaces provided.

You must answer **all** questions in this section.

For the multiple-choice questions, shade the circle next to the correct answer.

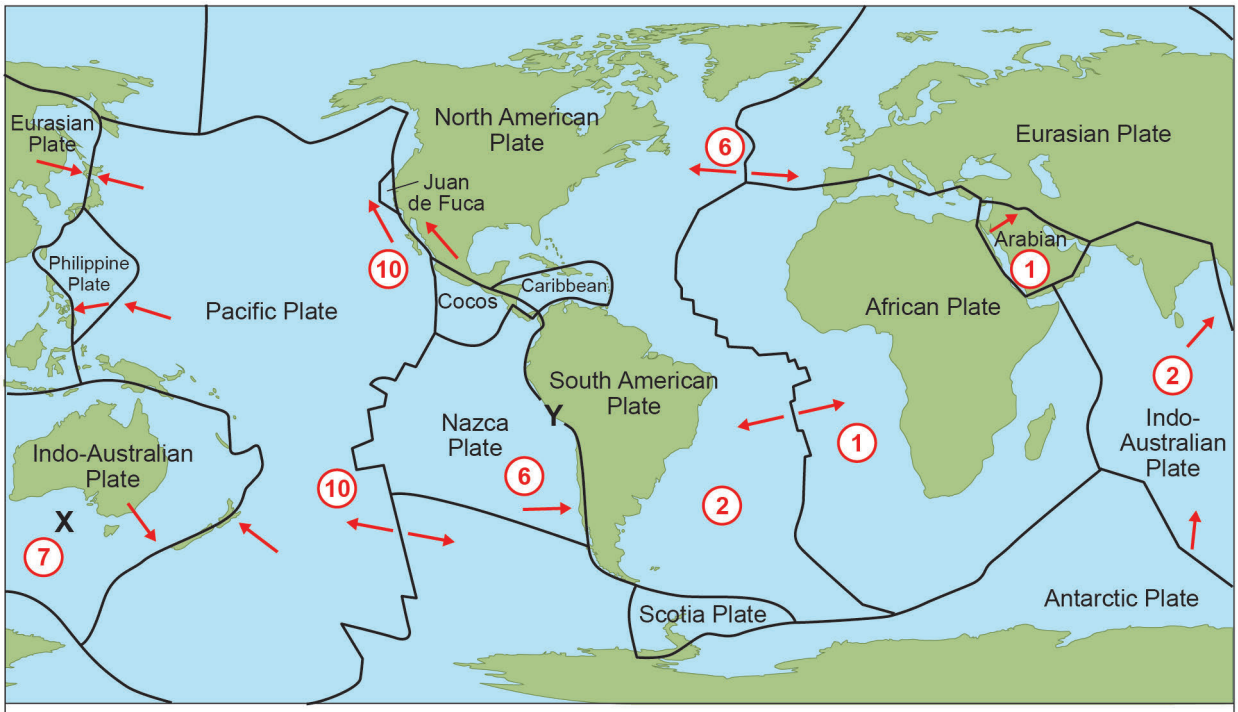
CORRECT METHOD WRONG METHODS

If you want to change your answer you must cross out your original answer as shown.

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.

Study **Figure 1**, a map showing the major plate margins.

Figure 1



Key

Direction of plate movement (10) Rate of plate movement (cm/year)

0 1 . 1 State the direction of plate movement at **X**.

[1 mark]

0 2

IB/M/Nov21/9230/1

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0 1 . 2 Identify the type of plate margin at **Y**.

[1 mark]

_____

0 1 . 3 The North American plate and the Eurasian plate move apart 6 cm per year.

Calculate how many years it will take for the plates to move 60 m apart.

Show your working.

[2 marks]

_____

_____

_____

_____

Question 1 continues on the next page

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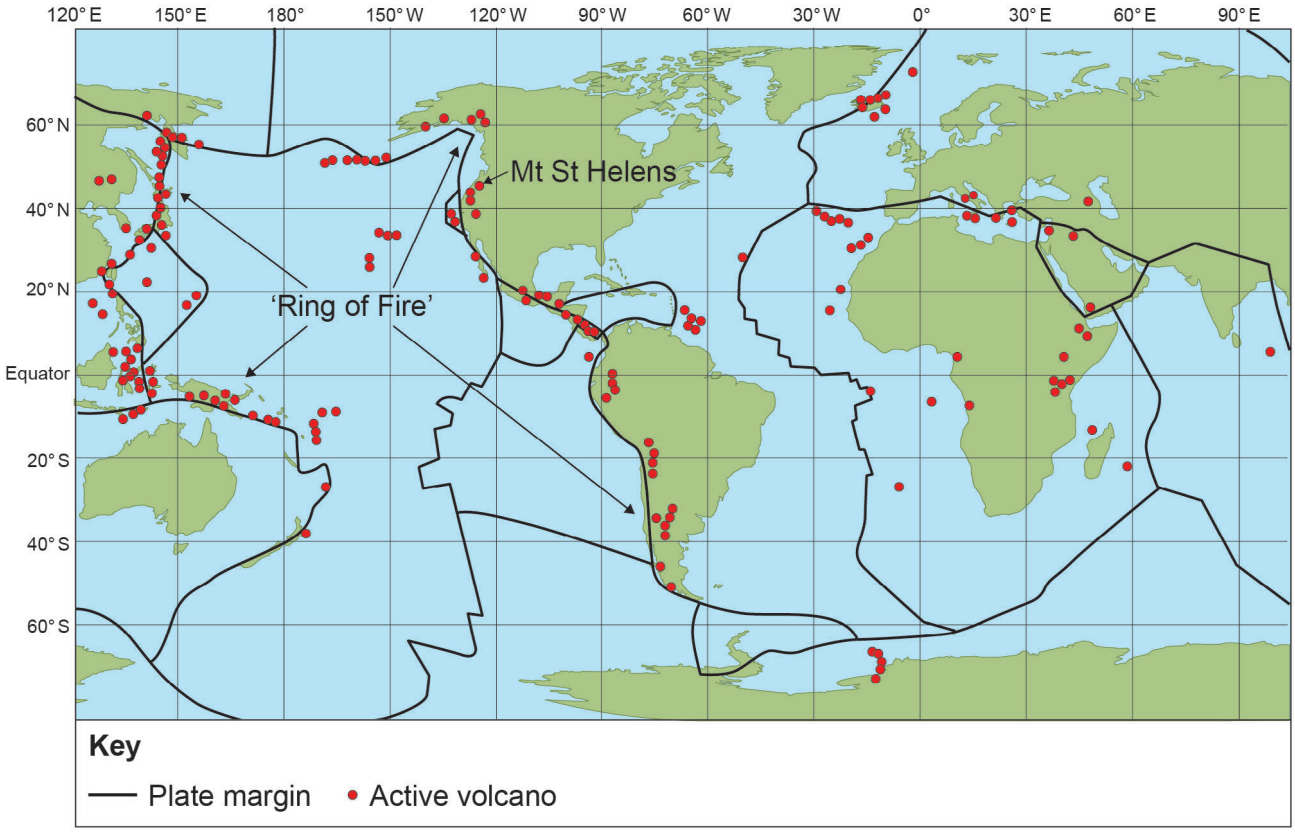
Study **Figure 2**, a map showing global distribution of volcanoes.

Figure 2



0 1 . 4 Mt St Helens volcano is shown on **Figure 2**.

What are the latitude and longitude coordinates for this volcano?

Shade in **one** circle only.

[1 mark]

A 45° N 122° E ⬭

B 45° S 122° E ⬭

C 45° N 122° W ⬭

D 45° S 122° W ⬭

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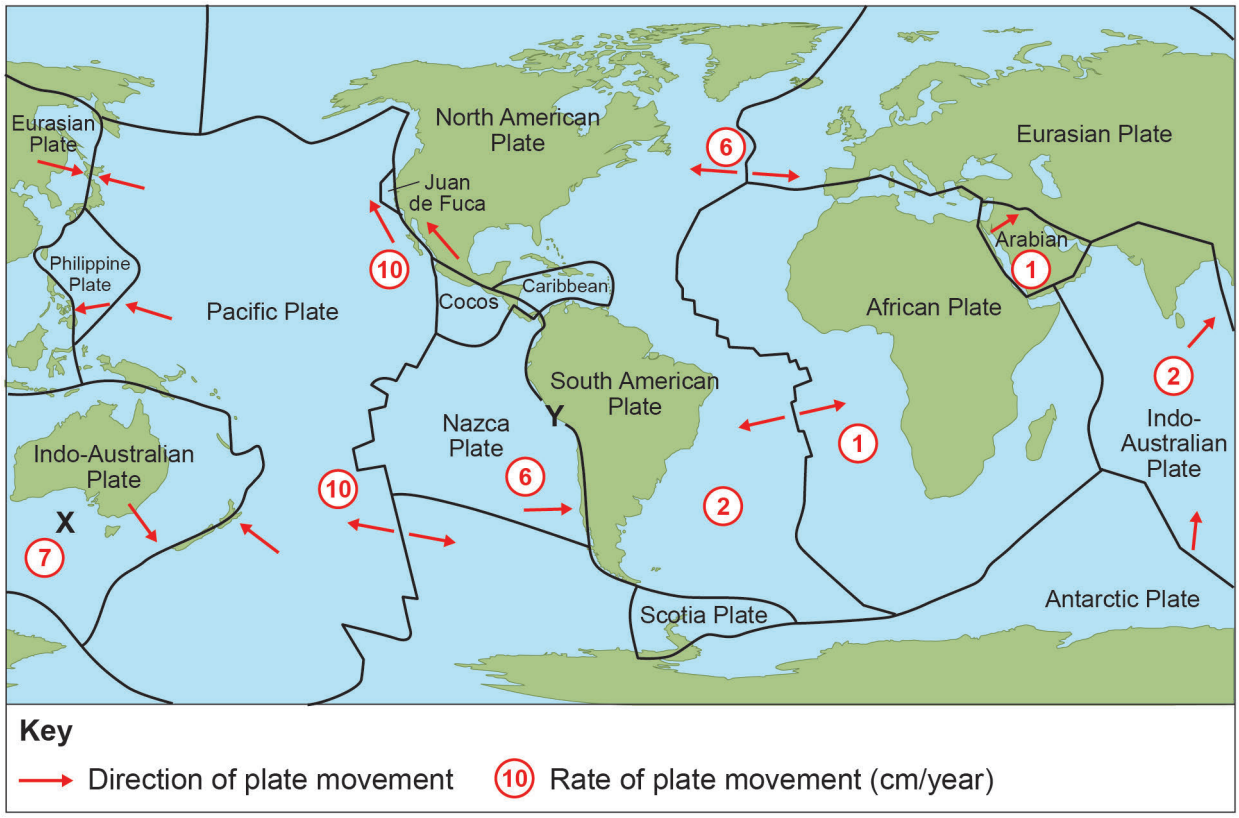
0 1 . 5 Volcanoes only occur at plate margins.

To what extent do you agree with this statement?

Use evidence from **Figure 1** and **Figure 2**.

[4 marks]

Figure 1 is repeated below



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0 1 . 6 Outline why volcanoes do **not** occur at conservative plate margins.

[2 marks]

Study **Figure 3**, a photograph of the eruption of Mt Agung, Bali in November 2017.

Figure 3

0 1 . 7 Use **Figure 3** to identify **one** likely risk to people living near the eruption.

[1 mark]

Do not write outside the box

0 1 . 8 Explain why people continue to live in areas at risk from volcanic activity.

[6 marks]

Question 1 continues on the next page

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Study **Figure 4**, a table showing China's energy mix in 2017 and the predicted energy mix in 2040.

Figure 4

Energy source	**2017 (%)**	**2040 (%)**
Oil	20	17
Gas	7	14
Coal	60	35
Nuclear	2	7
Hydro	8	9
Renewables, including biofuels	3	18

0 1 . 9 Calculate the predicted percentage change in China's use of coal shown in **Figure 4**.

[1 mark]

0 1 . 1 0 Outline changes to China's energy mix shown in **Figure 4**.

[2 marks]

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Question 1 continues on the next page

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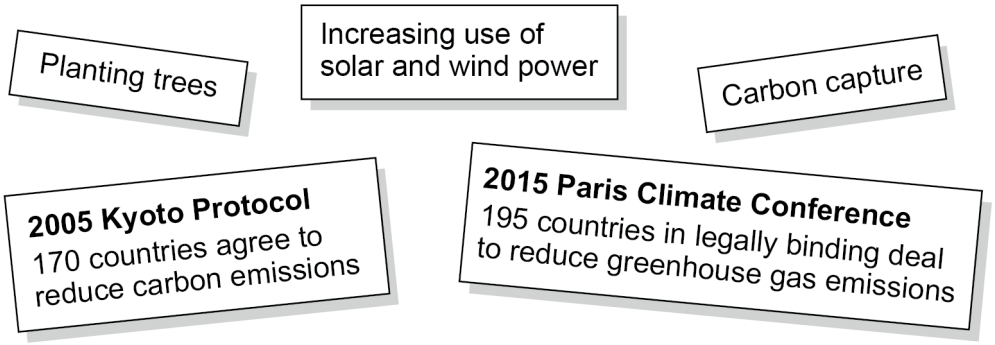
Study **Figure 5**, information on climate change mitigation strategies.

Figure 5



0 1 . 1 1 'International agreements are a vital mitigation strategy in effectively managing climate change.'

To what extent do you agree?

Use **Figure 5** and your own knowledge.

[9 marks]

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30

Turn over for the next section

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Section B – The Living World

Answer **all** questions in the spaces provided.

You must answer **all** questions in this section.

0 2 . 1 Which **one** of these is a producer in an ecosystem?

Shade in **one** circle only.

[1 mark]

A Bird ⬭

B Reptile ⬭

C Tree ⬭

D Insect ⬭

0 2 . 2 Explain how a food chain is different from a food web.

[2 marks]

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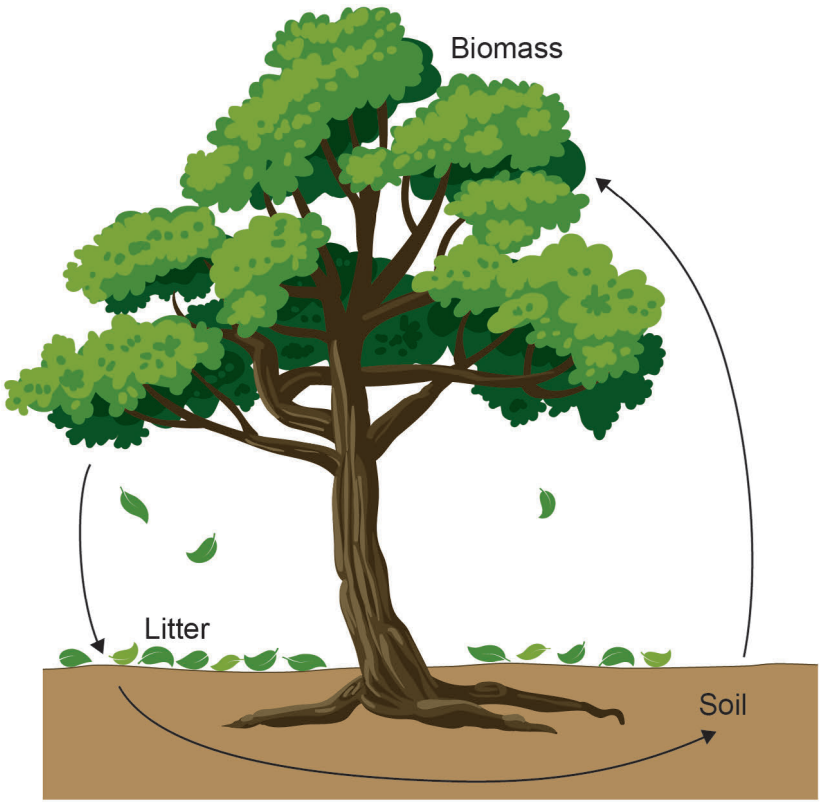
Study **Figure 6**, a diagram showing a nutrient cycle.

Figure 6



0 2 . 3 Use **Figure 6** to state **two** different facts about nutrient cycling.

[2 marks]

1 _____

_____

2 _____

_____

0 2 . 4 Outline what is meant by desertification.

[2 marks]

_____

_____

_____

_____

Do not write outside the box

Study **Figure 7**, a photograph of a cattle herd in Niger.

Figure 7

0 2 . 5 Suggest how overgrazing can lead to desertification.

Use **Figure 7** and your own understanding.

[4 marks]

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Question 2 continues on the next page

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Study **Figure 8**, a photograph of an area of tropical rainforest in Sumatra, Indonesia.

Figure 8

0 2 . 6 Explain how plants and animals adapt to the physical conditions (such as climate and soils) in the tropical rainforest.

Use **Figure 8** and your own knowledge.

[9 marks]

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20

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Section C – Physical landscapes

Coastal landscapes

Answer **all** questions in the spaces provided.

0 3 . 1 Outline the process of abrasion.

[2 marks]

Question 3 continues on the next page

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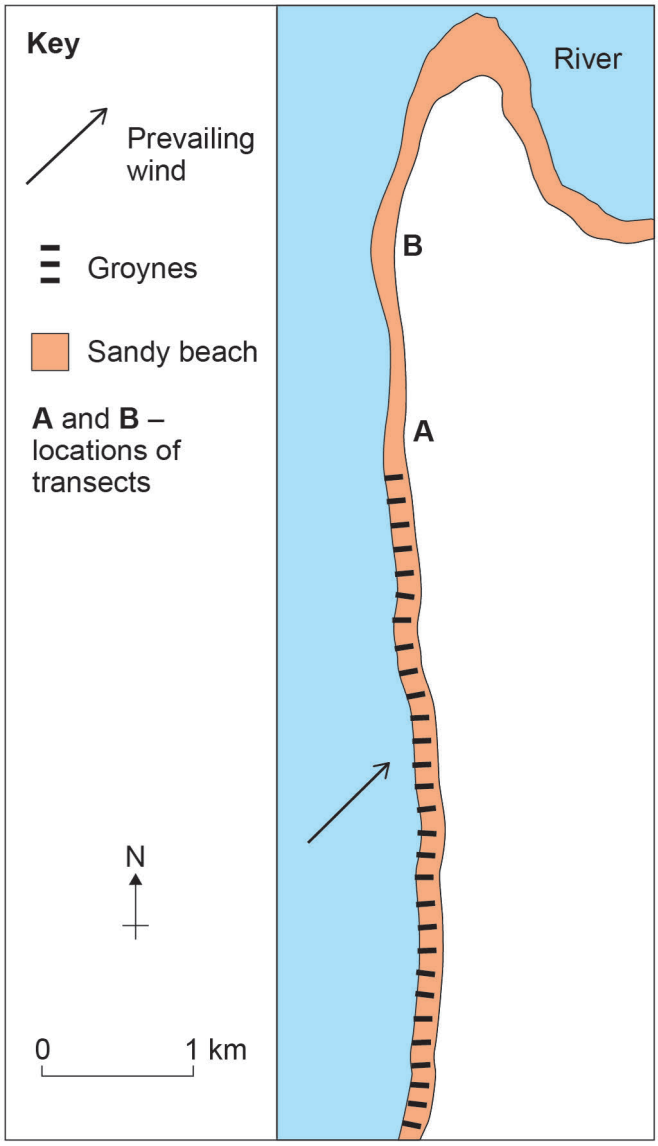
Study **Figure 9**, a sketch map showing a coastline formed by deposition and a table about sediment size.

Figure 9



Distance from sandy beach (m)	Transect **A** Sediment size Long axis (cm)	Transect **B** Sediment size Long axis (cm)
2	10.65	6.15
20	8.47	7.68
25	9.52	7.19
40	16.70	10.40
Mean	**11.33**	**7.86**
Range	**8.23**	

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0 3 . 2 Complete the table by calculating the range of sediment size at Transect **B**.

[1 mark]

0 3 . 3 Contrast the sediment size at Transect **A** with that further north at Transect **B**.

[2 marks]

0 3 . 4 Explain the role of deposition in the formation of a split.

Use **Figure 9** and your own understanding.

[4 marks]

Question 3 continues on the next page

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0 3 . 5 'The benefits of hard engineering are greater than the costs.'

To what extent do you agree with this statement?

[6 marks]

15

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Section D – Physical landscapes

Hot desert landscapes or River landscapes

Answer **all** questions in the spaces provided.

You must answer **one** question from this section, **either** Question **4 or** Question **5**.

Question 4 Hot desert landscapes

0 4 . 1 Draw a line to join the correct definition to the transportation process.

[2 marks]

Transportation process	Definition
Saltation	Rolling of pebbles on the ground
Surface creep	Fine material carried in the air
Suspension	Hopping movement of sand

Study **Figure 10**, a photograph showing sand dunes in a hot desert landscape.

Figure 10

Do not write outside the box

0 4 . 2 Identify the features of the sand dunes labelled at **X**, **Y** and **Z** in **Figure 10**.

[3 marks]

X _____

Y _____

Z _____

0 4 . 3 Explain the role of the wind in the formation of sand dunes in a hot desert landscape.

Use **Figure 10** and your own understanding.

[4 marks]

_____

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Question 4 continues on the next page

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Study **Figure 11**, an extract about opportunities for farming in hot desert environments.

Figure 11

Various more sustainable methods of farming are now being tried:

- use of genetically modified crops, such as alfalfa, rice and cotton
- crops native to deserts, such as date palms and the prickly pear
- use of drip and sprinkle irrigation
- lining of irrigation channels with concrete.

With rising global prices, the Qatari government has decided to concentrate on becoming self-sufficient in food by 2023. Plans put forward to do this include:

- large-scale irrigation systems using desalinated seawater
- vertical farming with fields on different floors in huge skyscrapers
- hydroponics or soilless agriculture.

0 4 . 4 Explain how hot desert environments are managed to provide opportunities for farming.

Use **Figure 11** and your own understanding.

[6 marks]

15

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Question 5 River landscapes

0 5 . 1 Draw a line to join the correct definition to the transportation process.

[2 marks]

Transportation process	**Definition**
Saltation	Rolling of pebbles on the riverbed
Traction	Fine material carried in the water
Suspension	Hopping movement of sediment on the riverbed

Study **Figure 12**, a photograph showing some river landforms.

Figure 12

Do not write outside the box

0 5 . 2 Identify the features of the river landscape labelled at **X**, **Y** and **Z** in **Figure 12**.

[3 marks]

X _____

Y _____

Z _____

0 5 . 3 Explain the role of erosion and deposition in the formation of meanders.

Use **Figure 12** and your own understanding.

[4 marks]

_____

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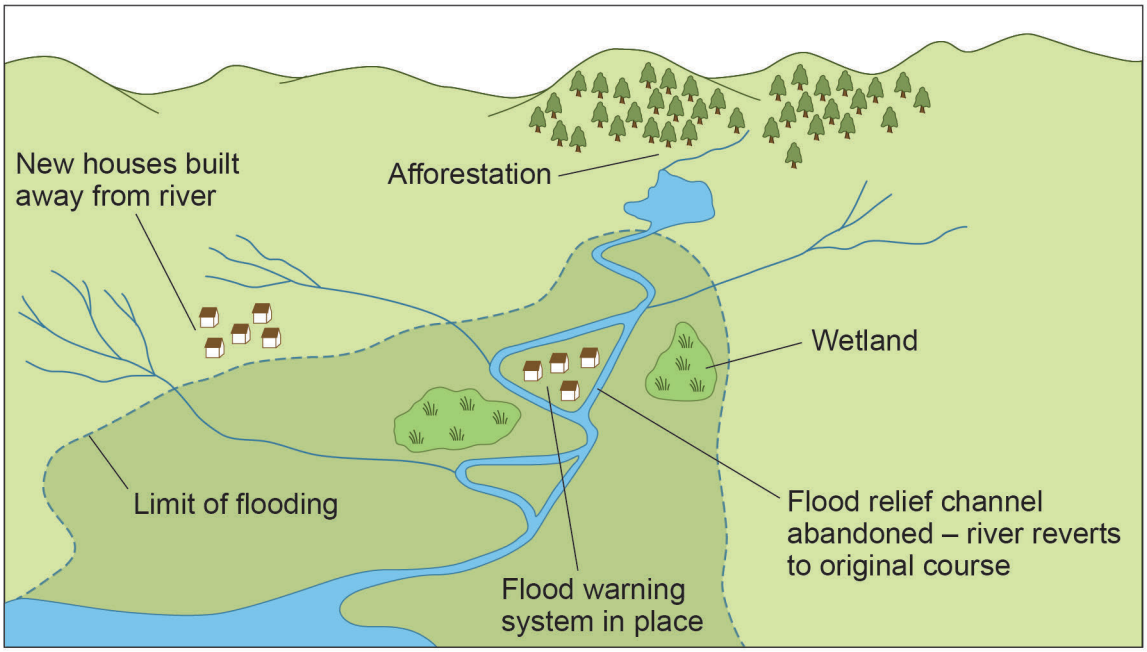
Study **Figure 13**, a diagram showing soft engineering strategies in a river valley.

Figure 13



0 5 . 4 Explain how soft engineering strategies can reduce the impacts of flooding.

Use **Figure 13** and your own understanding.

[6 marks]

15

END OF QUESTIONS

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