Write your name here

Surname		Other names

Geography B
Unit 1: Dynamic Planet

Foundation Tier

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 **all** questions.
- In Section B, answer **either** question 5 **or** 6.
- In Section C, answer **either** question 7 **or** 8.
- Answer the questions in the spaces provided
  – *there may be more space than you need*.

Information

- The total mark for this paper is 78.
- 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.*
- The marks available for spelling, punctuation and grammar are clearly indicated.

Advice

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

Turn over ▶

PEARSON

SECTION A – INTRODUCTION TO THE DYNAMIC PLANET

Answer ALL questions in this section.

Topic 1: Restless Earth

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   Figure 1 shows the number of deaths in five major earthquakes.

Year	Location	Magnitude (Richter scale)	Number of deaths
2011	East coast of Japan	9.0	20,900
2010	Haiti	7.0	316,000
2008	Sichuan (China)	7.9	87,600
2007	Peru	8.0	500
2004	NW coast of Sumatra (Indonesia)	9.1	227,900

(Source: © Credit: U.S. Geological Survey, Department of the Interior/USGS 2015)

Figure 1

(a) Study Figure 1.

(i) Which **one** of the following earthquakes had the highest magnitude?

(1)

☒ **A** East coast of Japan

☒ **B** Haiti

☒ **C** Sichuan (China)

☒ **D** NW coast of Sumatra (Indonesia)

(ii) Many of the deaths in the 2010 Haiti earthquake were caused by secondary impacts.

Which **one** of the following is a secondary impact of earthquakes?

(1)

☒ **A** buildings collapsing

☒ **B** outbreak of disease

☒ **C** bricks and masonry falling

☒ **D** lava flows

(b) State **two** differences between continental and oceanic crust.

(2)

1 ....

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(c) Describe the techniques used to predict volcanic eruptions.

(4)

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P 4 6 4 7 0 A 0 3 2 8

(d) Explain how volcanoes form on destructive plate boundaries.

You may use a diagram to help your answer.

(4)

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(Total for Question 1 = 12 marks)

Topic 2: Changing Climate

2 Figure 2 shows the predicted decrease in average rainfall in the UK for the 2080s.

N

Percentage (%) decrease in rainfall

-40   -30   -20   -10   0
                            No
                            change

0   200
km
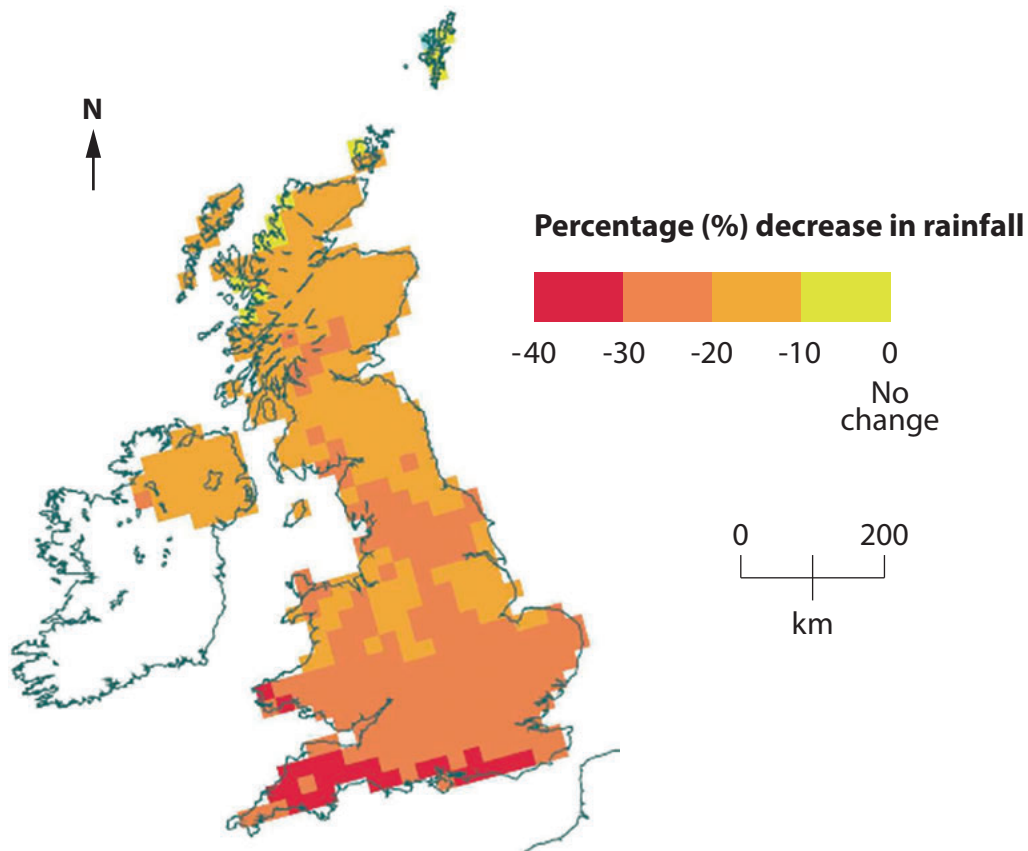
Figure 2

(a) Study Figure 2.

(i) Which **one** of the following areas of the UK will experience the largest percentage (%) decrease in rainfall?

(1)

☒ **A** Northern Scotland

☒ **B** Northern Ireland

☒ **C** East Anglia

☒ **D** South west England

(ii) Which **one** of the following is the most likely result of the changes in rainfall?

(1)

☒ **A** more flooding

☒ **B** more droughts

☒ **C** higher temperatures

☒ **D** more storms

(b) State **two** natural causes of climate change.

(2)

1 ....

2 ....

(c) Describe how human activities are increasing global temperatures.

(4)

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(d) Using examples, describe the impact of climate change on the environment of the UK.

(4)

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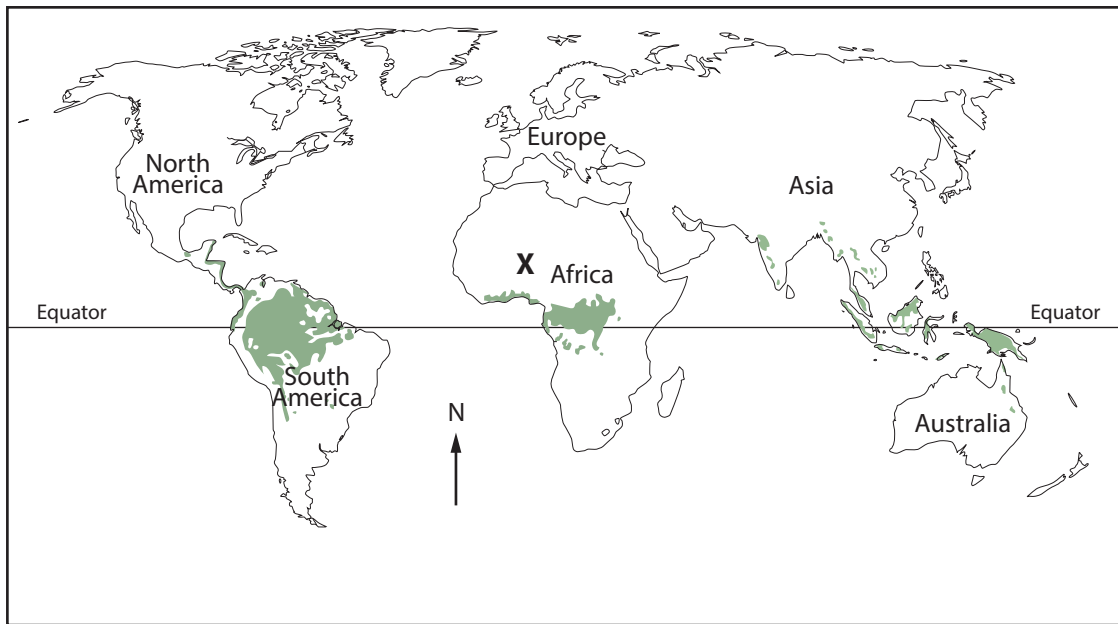
(Total for Question 2 = 12 marks)

Topic 3: Battle for the Biosphere

3 Figure 3 shows the location of the tropical rainforest biome.

KEY

■ = tropical rainforest biome

(Source: © Mongabay.com 2015)

Figure 3

(a) Study Figure 3.

(i) Which **one** of the following continents has the largest area of tropical rainforest?

(1)

☒ **A** Europe

☒ **B** North America

☒ **C** South America

☒ **D** Africa

(ii) Which **one** of the following is the reason why there is no tropical rainforest at **X**?

(1)

☒ **A** It is too dry.

☒ **B** It is too wet.

☒ **C** It is too cold.

☒ **D** It is too windy.

(b) Define the term **eco-system**.

(2)

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(c) Describe how human activities are destroying tropical rainforests.

(4)

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(d) Explain **two** ways in which the biosphere regulates the composition of the atmosphere.

(4)

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(Total for Question 3 = 12 marks)

Topic 4: Water World

4 Figure 4 summarises some of the benefits and costs of dams.

Large-scale water management schemes such as dams and reservoirs provide important benefits. They generate hydro-electric power and provide water for the irrigation of crops. They also help to manage floods, create waterways for transport and provide recreational opportunities.

However, dams come with significant costs. Dams have changed the ecosystems of very many rivers around the world. They have damaged habitats, flooded valuable farmland and disrupted populations of fish and wildlife. They have also damaged local economies and communities.

Figure 4

(a) Study Figure 4.

(i) Which **one** of the following is a positive impact of building dams and reservoirs?

(1)

☒ **A** Providing water for the irrigation of crops.

☒ **B** Eroding the river channel downstream.

☒ **C** Damaging local economies.

☒ **D** Reducing recreational opportunities.

(ii) Which **one** of the following is likely to be increased by building dams and reservoirs?

(1)

☒ **A** precipitation

☒ **B** condensation

☒ **C** evaporation

☒ **D** run-off

(b) State **two** ways that human activity can reduce water supply.

(2)

1 ....

2 ....

(c) For a named area with water shortages, describe the impact of these shortages on people.

(4)

Named area: ....

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(d) Describe **two** processes of the hydrological cycle that return water to the oceans.

(4)

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2 ....

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(Total for Question 4 = 12 marks)

TOTAL FOR SECTION A = 48 MARKS

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SECTION B BEGINS ON THE FOLLOWING PAGE.

SECTION B – SMALL-SCALE DYNAMIC PLANET

Answer ONE question in this section.

Topic 5: Coastal Change and Conflict

If you answer Question 5 put a cross in the box ☒ .

Spelling, punctuation and grammar will be assessed in 5*(d).

5   Figure 5 shows a satellite image of part of the Hampshire coastline.

(Source: © 2015 Google Earth)

Figure 5

(a) Study Figure 5.

    (i)   Name the coastal landform in Box X.

(1)

      ☒ **A** bar

      ☒ **B** spit

      ☒ **C** cliff

      ☒ **D** headland

(ii) Identify the process that moves material along the coast at Y.

(1)

⊠ **A** swash

⊠ **B** deposition

⊠ **C** longshore drift

⊠ **D** hydraulic action

(b) State **two** features of destructive waves.

(2)

1 ....

2 ....

(c) Outline **one** way in which climate change may affect rates of coastal erosion.

(2)

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P 4 6 4 7 0 A 0 1 3 2 8

*(d) For a named coastline, explain how coastal erosion has been managed.

(6)

Named coastline: ....

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(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 5 = 15 marks)

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QUESTION 6 BEGINS ON THE FOLLOWING PAGE.

Topic 6: River Processes and Pressures

If you answer Question 6 put a cross in the box ☒ .

Spelling, punctuation and grammar will be assessed in 6*(d).

6   Figure 6 shows a satellite image of part of the Kamchatka River, Russia.

(Source: © 2015 Google Earth)

Figure 6

(a) Study Figure 6.

(i)   Name the river landform in Box X.

(1)

☒   **A**   waterfall

☒   **B**   interlocking spur

☒   **C**   levee

☒   **D**   oxbow lake

(ii) Identify the process most likely to be taking place at the locations labelled Y.

(1)

☒   **A**   deposition

☒   **B**   undercutting

☒   **C**   attrition

☒   **D**   erosion

(b) State **two** ways in which a river erodes its channel.

(2)

1 ....

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(c) Outline **one** way that human activity can increase flood risk.

(2)

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*(d) For a named flood management scheme, explain how the impact of flooding has been reduced.

(6)

Named flood management scheme: ....

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(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 6 = 15 marks)

TOTAL FOR SECTION B = 15 MARKS

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SECTION C BEGINS ON THE FOLLOWING PAGE.

P 4 6 4 7 0 A 0 1 9 2 8

SECTION C – LARGE-SCALE DYNAMIC PLANET

Answer ONE question in this section.

Topic 7: Oceans on the Edge

If you answer Question 7 put a cross in the box ☒ .

Spelling, punctuation and grammar will be assessed in 7*(d).

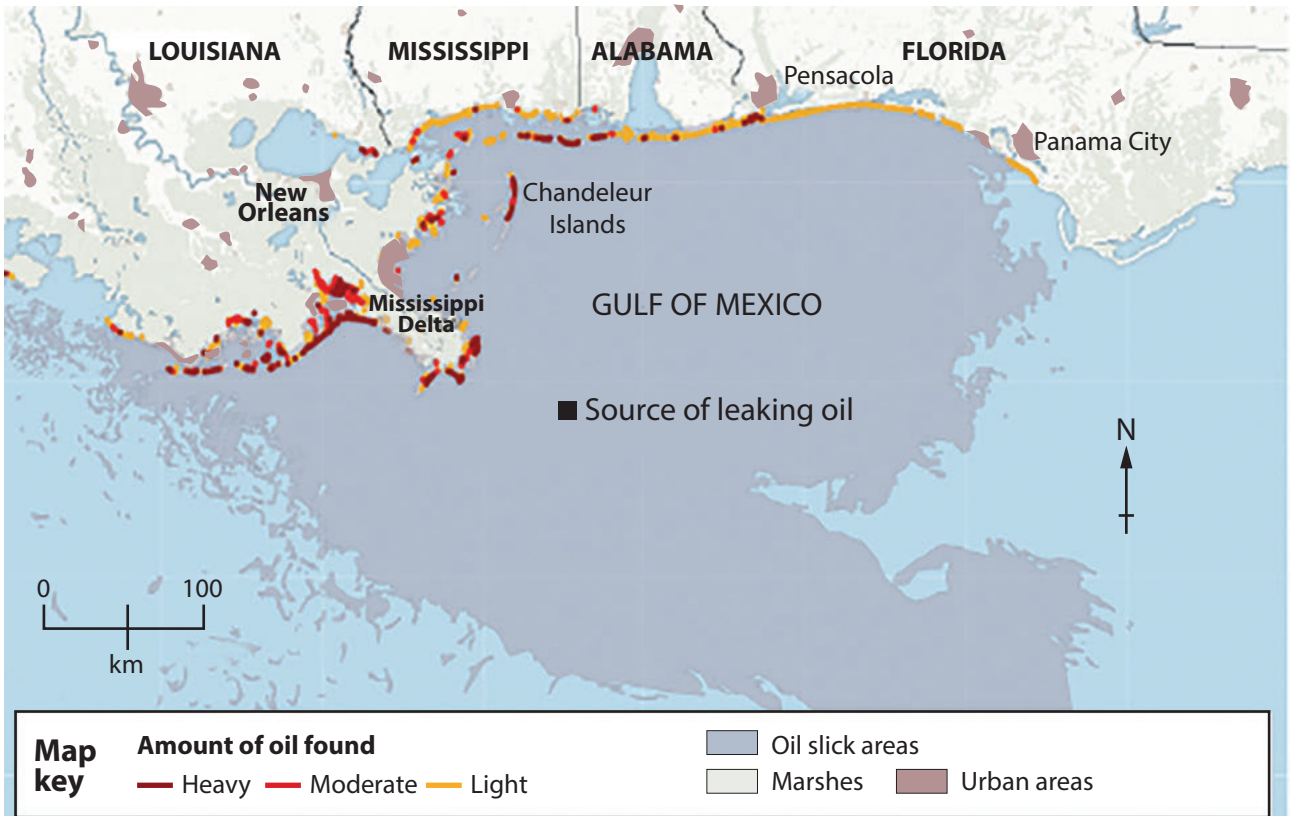**7** Figure 7 shows pollution levels on the southern coastline of the USA after an oil rig accident.

Figure 7

(a) Study Figure 7.

(i)   Which **one** of the following is the best description of the pattern of pollution?

(1)

☒ **A** It is heaviest in Florida

☒ **B** Alabama only has light pollution

☒ **C** Pollution gets worse from east to west

☒ **D** Most of the coastline has moderate pollution

(ii) Which **one** wind direction would be most likely to increase the amount of oil on the coastline of Louisiana?

(1)

☒ **A** North-easterly

☒ **B** South-westerly

☒ **C** South-easterly

☒ **D** North-westerly

(b) Outline **one** way climate change could damage marine food-webs.

(2)

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(c) Describe **one** global action which aims to maintain ocean health.

(2)

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P 4 6 4 7 0 A 0 2 1 2 8

*(d) Using examples, explain how local actions can manage marine eco-systems sustainably.

(6)

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(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 7 = 15 marks)

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QUESTION 8 BEGINS ON THE FOLLOWING PAGE.

Topic 8: Extreme Environments

If you answer Question 8 put a cross in the box ☒ .

Spelling, punctuation and grammar will be assessed in 8*(d).

8   Figure 8 shows the polar bear population in North America and Greenland.
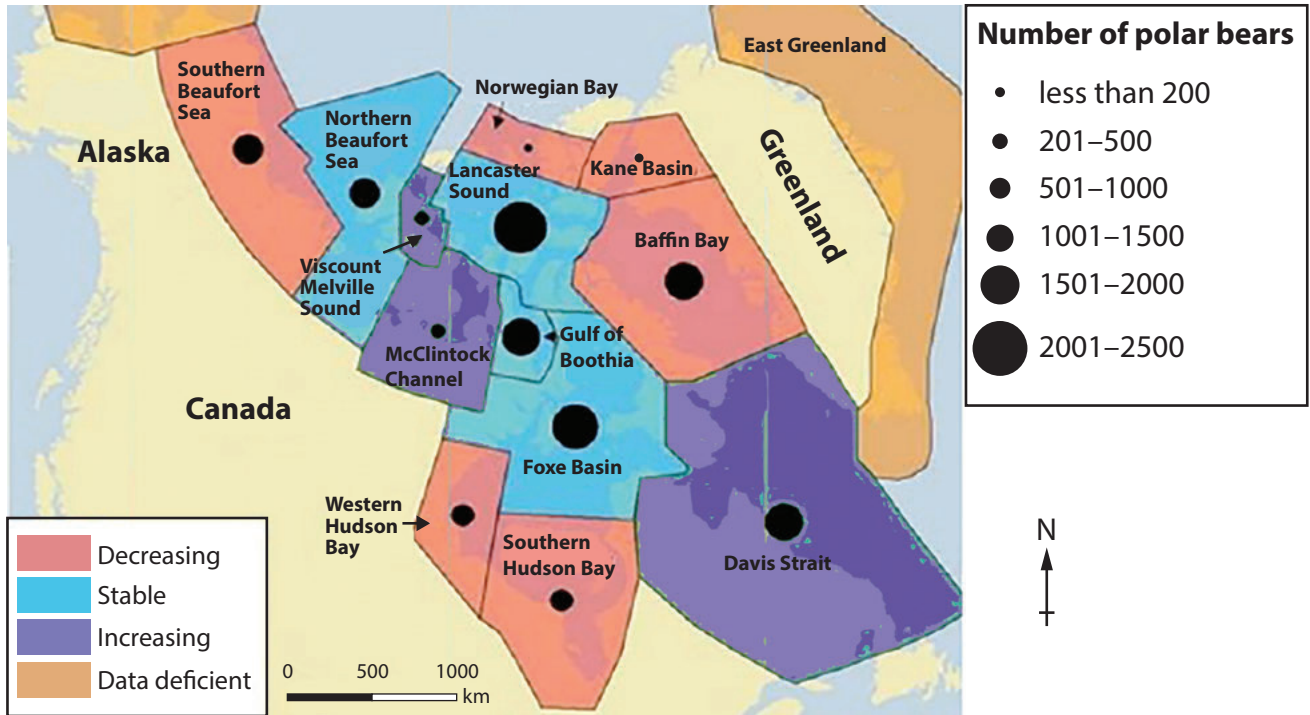

Figure 8

(a) Study Figure 8.

(i) Which **one** of the following regions has the largest polar bear population?

(1)

☒ **A** Southern Beaufort Sea

☒ **B** Lancaster Sound

☒ **C** Davis Strait

☒ **D** Baffin Bay

(ii) In which **one** of the following regions is the polar bear population likely to disappear first?

(1)

⊠ **A** Norwegian Bay

⊠ **B** Gulf of Boothia

⊠ **C** Viscount Melville Sound

⊠ **D** Western Hudson Bay

(b) For a named plant or animal, outline **one** way it has adapted to its extreme environment.

(2)

Named plant or animal: ....

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(c) Describe **one** global action which aims to protect extreme environments from the impacts of climate change.

(2)

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*(d) Using examples, explain how local actions can help communities survive in extreme environments.

(6)

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(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 8 = 15 marks)

TOTAL FOR SECTION C = 15 MARKS

TOTAL FOR PAPER = 78 MARKS

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