Please check the examination details below before entering your candidate information

Candidate surname	Other names

Pearson Edexcel Level 3 GCE

Centre Number | Candidate Number

Wednesday 22 May 2019

Afternoon (Time: 2 hours 15 minutes) | Paper Reference **9GE0/01**

Geography

Advanced
Paper 1

You must have:
Resource Booklet (enclosed)
Ruler, calculator

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.
- Answer **all** questions in Section **A** and Section **C**.
- Answer **either** Question 2 **or** Question 3 in Section **B**.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- Calculators may be used.
- Any **calculations** must show **all** stages of **working out** and a **clear answer**.

Information

- The total mark for this paper is 105.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*

Advice

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

Turn over ▶

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SECTION A: TECTONIC PROCESSES AND HAZARDS

Answer ALL questions in this section. Write your answers in the spaces provided.

You must use the Resource Booklet provided.

1 (a) Study Figure 1 in the Resource Booklet.

This is part of an investigation into the spatial impacts of tsunami events.

(i) Calculate the mean number of deaths recorded.

(1)

Mean = ...

(ii) Calculate the median number of deaths recorded.

(1)

Median = ...

(iii) Calculate the interquartile range for the number of deaths recorded.

You must show your working.

(2)

Interquartile range = ...

(b) Assess the reasons why managing the impacts of tectonic hazards varies in its effectiveness.

(12)

(Total for Question 1 = 16 marks)

TOTAL FOR SECTION A = 16 MARKS

SECTION B: LANDSCAPE SYSTEMS, PROCESSES AND CHANGE

Answer ONE question in this section – EITHER Question 2 OR Question 3.

Glaciated Landscapes and Change

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 ☒.

If you answer Question 2 put a cross in the box ☒ .

You must use the Resource Booklet provided.

2 Study Figure 2a in the Resource Booklet.

(a) Explain the contribution of glacial erosional processes to the development of this landscape.

(6)

Study Figure 2b in the Resource Booklet.

(b) Explain the contribution of glacial deposition to the development of this landscape.

(6)

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(c) Explain why a range of approaches is needed to manage glaciated landscapes.

(8)

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(d) Evaluate the view that the rate of glacier movement is mainly determined by variations in the mass balance of a glacier.

(20)

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(Total for Question 2 = 40 marks)

Do not answer Question 3 if you have answered Question 2.

Coastal Landscapes and Change

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 ☒.

If you answer Question 3 put a cross in the box ☒ .

You must use the Resource Booklet provided.

3 Study Figure 3a in the Resource Booklet.

(a) Explain the contribution of marine erosional processes to the development of this landscape.

(6)

Study Figure 3b in the Resource Booklet.

(b) Explain the contribution of coastal deposition to the development of this landscape.

(6)

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(c) Explain why a range of approaches is needed to manage coastal landscapes.

(8)

(d) Evaluate the view that coastal flood risks are increasing mainly because of rising sea levels.

(20)

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(Total for Question 3 = 40 marks)

TOTAL FOR SECTION B = 40 MARKS

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SECTION C: PHYSICAL SYSTEMS AND SUSTAINABILITY

Answer ALL questions in this section. Write your answers in the spaces provided.

You must use the Resource Booklet provided.

4 (a) Study Figure 4a in the Resource Booklet.

Explain **one** impact of the changes in biofuel production in Brazil on the carbon cycle.

(3)

(b) Explain why the level of economic development affects the energy mix of countries.

(6)

(c) Explain why there are uncertainties about future levels of carbon release from peatlands and permafrost.

(8)

(d) Study Figure 4b in the Resource Booklet.

Assess the role of physical factors in influencing the pattern of future water stress.

(12)

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(e) Evaluate the view that large-scale water management projects often create more problems than they solve for people and the environment.

(20)

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(Total for Question 4 = 49 marks)

TOTAL FOR SECTION C = 49 MARKS
TOTAL FOR PAPER = 105 MARKS

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Geography

Advanced
Paper 1

Resource Booklet
Do not return this Resource Booklet with the question paper.

Turn over ▶

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SECTION A

The following resource relates to Question 1.

Year	Location	Deaths recorded
1979	Colombia	600
1991	Costa Rica	2
1992	Nicaragua	170
1995	Mexico	1
1996	Peru	12
2001	Peru	26
2007	Chile	10
2007	Peru	3
2010	Chile	156
2015	Chile	8
Summary Statistics		
Number of tsunami events		10
Deaths recorded		988
Mean		
Median		
Interquartile range		

Figure 1

The number of deaths resulting from tsunami events, Eastern Pacific 1979 - 2015

SECTION B

The following resources relate to Question 2.

Figure 2a

A relict glaciated landscape

Figure 2b

A relict glaciated valley landscape

The following resources relate to Question 3.

Figure 3a

A coastal landscape

Figure 3b

A coastal plain landscape

SECTION C

The following resources relate to Question 4.

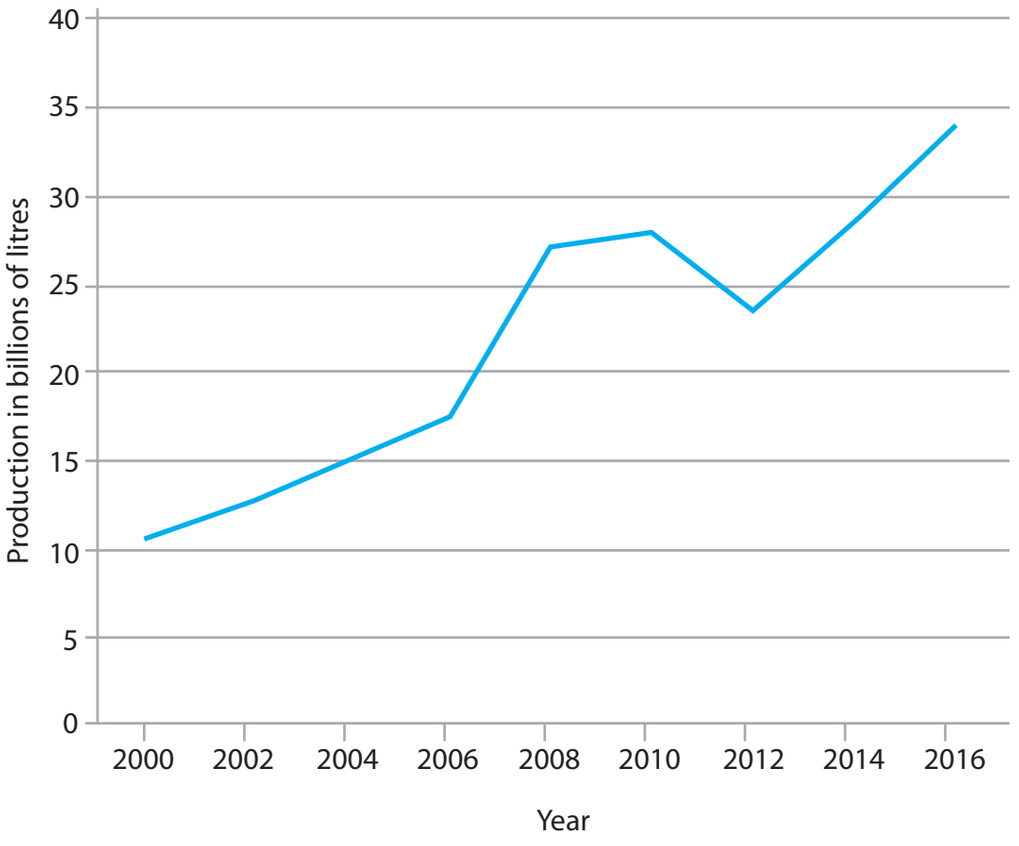

Figure 4a

Biofuel production in Brazil, the world's second largest producer, 2000-2016

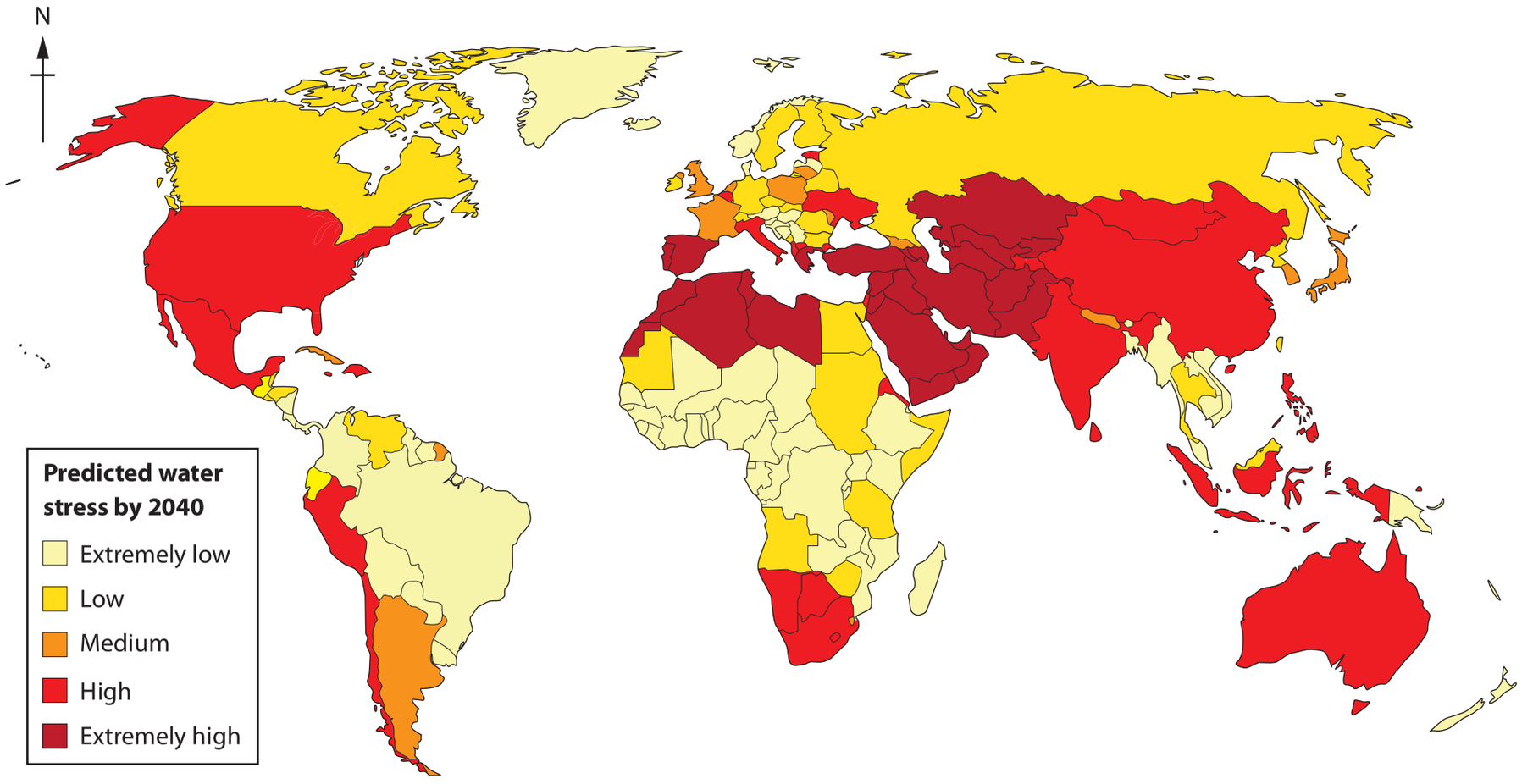

Figure 4b

Predicted world water stress, 2040

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