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AQA

Surname ____________________

Other Names ____________________

Centre Number ____________________

Candidate Number ____________________

For Examiner's Use

Candidate Signature ____________________

I declare this is my own work.

A-level
GEOGRAPHY
7037/1

Paper 1 Physical Geography

Wednesday 20 May 2020 Afternoon

Time allowed: 2 hours 30 minutes

MATERIALS
For this paper you must have:
- the colour insert (enclosed)
- a pencil
- a rubber
- a ruler.

You may use a calculator.

At the top of the page, write your surname and other names, your centre number, your candidate number and add your signature.

[Turn over]

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INSTRUCTIONS

- Use black ink or black ball-point pen.
- Answer ALL questions in Section A.
- Answer EITHER Question 2 OR Question 3 OR Question 4 in Section B.
- Answer EITHER Question 5 OR Question 6 in Section C.
- You must answer the questions in the spaces provided. Do not write on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

INFORMATION

- The marks for questions are shown in brackets.
- The total number of marks available for this paper is 120.

DO NOT TURN OVER UNTIL TOLD TO DO SO

SECTION A

Water and carbon cycles

Answer ALL questions in this section.

0 1 . 1 **Outline the process of decomposition in the carbon cycle. [4 marks]**

[Turn over]

FIGURE 1, on pages 2 and 3 of the insert, shows annual and 5-year moving average rainfall data for two measuring stations in South Africa: Royal Observatory and Dwarsberg.

0 1 . 2 **Analyse the data shown in FIGURE 1.**
[6 marks]

FIGURE 2, on pages 4 and 5 of the insert, shows the number of days when precipitation is high enough for plant growth across southern Africa in 2000 and that projected for 2050.

0 1 . 3 **Using FIGURE 2 and your own knowledge, assess the predicted impact of climate change upon life in this region. [6 marks]**

[Turn over]

0 1 . 4 **Assess the impact of farming practices on the carbon budget. [20 marks]**

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[End of Section A]

[Turn over for Section B]

SECTION B

Answer ONE question in this section.

Answer EITHER Question 2 OR Question 3 OR Question 4.

QUESTION 2 Hot desert systems and landscapes

0 2 . 1 **Outline the role of cold ocean currents as a cause of aridity. [4 marks]**

FIGURE 3, on pages 6 and 7 of the insert, shows desertification risk levels by landscape type in an area of Tunisia, north Africa.

0 2 . 2 Analyse the relationship between landscape type and risk of desertification shown in FIGURE 3. [6 marks]

FIGURE 4, on page 8 of the insert, shows a landscape near to Naein, central Iran.

0 2 . 3 **Using FIGURE 4 and your own knowledge, assess the view that low precipitation is the most important factor leading to the development of this landscape. [6 marks]**

0 2 . 4 **‘Desertification trends are entirely a product of human-induced climate change as opposed to naturally occurring phenomena.’**

To what extent do you agree with this view?
[20 marks]

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[End of Question 2]

[Turn over]

QUESTION 3 Coastal systems and landscapes

0 3 . 1 **Outline the process of sub-aerial weathering in the development of coastal landscapes.**
[4 marks]

[Turn over]

FIGURE 5, on pages 10 and 11 of the insert, shows the isostatic adjustment in 2010 (green arrows) for selected recording stations in Greenland. Information on the 2010 melting day anomaly is also shown.

0 3 . 2 **Analyse the relationship between isostatic adjustment and the 2010 melting day anomaly in Greenland as shown in FIGURE 5. [6 marks]**

[Turn over]

FIGURE 6, on page 12 of the insert, is a photograph of a coastal feature, taken in Malta in 2017.

0 3 . 3 **Using FIGURE 6 and your own knowledge, assess the view that rock type is the most important factor in the development of this landscape. [6 marks]**

[Turn over]

0 3 . 4 **With reference to a coastal environment at a local scale, assess the predicted impact of climate change upon the landscape.**
[20 marks]

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[End of Question 3]

[Turn over]

QUESTION 4 Glacial systems and landscapes

0 4 . 1 **Outline the geomorphological process of nivation. [4 marks]**

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[Turn over]

FIGURE 7, on pages 14 and 15 of the insert, shows the mean mass balance and cumulative mass balance for selected glaciers around the world.

0 4 . 2 **Analyse the data shown in FIGURE 7.**
[6 marks]

FIGURE 8, on page 16 of the insert, shows an area of tundra vegetation in the Sajama National Park, Bolivia.

0 4 . 3 **Using FIGURE 8 and your own knowledge, assess the view that temperature variation is the most significant factor in the development of this vegetation. [6 marks]**

0 4 . 4 **With reference to a glaciated landscape beyond the UK, assess the role of management in shaping alternative possible futures. [20 marks]**

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[End of Question 4]

[Turn over]

SECTION C

Answer ONE question in this section.

Answer EITHER Question 5 OR Question 6.

QUESTION 5 Hazards

0 5 . 1 **Outline the process of liquefaction.**
[4 marks]

[Turn over]

FIGURES 9a and 9b are in the insert.

FIGURE 9a, on pages 18 and 19 of the insert, shows the number of global reported disasters between 1990 and 2017.

It also shows the economic costs associated with the reported disasters.

FIGURE 9b, on pages 20 and 21 of the insert, shows information about the global reported disasters for 2017 as shown in FIGURE 9a.

0 5 . 2 Analyse the data shown in FIGURE 9a and FIGURE 9b. [6 marks]

FIGURES 10a, 10b and 10c are in the insert.

FIGURE 10a, on page 22 of the insert, shows the track of Hurricane Michael, and data related to the intensity and timescale of the event.

FIGURE 10b, on page 23 of the insert, shows the track of Hurricane Michael between 9–12 October and the rainfall associated with the event.

FIGURE 10c, on page 24 of the insert, shows the aftermath of the event at Mexico Beach in Florida, USA.

0 5 . 3 **Using FIGURES 10a, 10b, 10c and your own knowledge, assess the potential issues associated with managing this event.**
[9 marks]

0 5 . 4 ‘Seismic activity offshore will always present a greater threat to people than seismic activity on land.’

To what extent do you agree with this view?
[9 marks]

0 5 . 5 **How far do you agree that storms and wildfires are increasing in frequency and intensity, presenting an increasing threat to people? [20 marks]**

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[End of Question 5]

QUESTION 6 Ecosystems under stress

0 6 . 1 **Outline the process of succession in a lithosere. [4 marks]**

FIGURES 11a and 11b are in the insert.

FIGURE 11a, on page 26 of the insert, shows the global human footprint in 2009.

FIGURE 11b, on page 27 of the insert, shows the change in the global human footprint between 1993 and 2009.

0 6 . 2 **Analyse the data shown in FIGURE 11a and FIGURE 11b. [6 marks]**

FIGURES 12a, 12b and 12c are in the insert.

FIGURE 12a, on pages 28 and 29 of the insert, shows coral bleaching in the Great Barrier Reef (GBR), Australia, in 2016.

FIGURE 12b, on page 30 of the insert, shows estimated change in sea water pH caused by human-created CO_2 between the 1700s and the 1990s.

FIGURE 12c, on page 31 of the insert, shows the sea surface temperature anomaly for the Coral Sea, Australia, between 1900 and 2016.

0 6 . 3 **Using FIGURES 12a, 12b, 12c and your own knowledge, assess the scale of the threat facing this coral reef. [9 marks]**

0 6 . 4 **Assess the impact of declining biodiversity upon a major terrestrial biome that you have studied. [9 marks]**

0 6 . 5 **With reference to a region experiencing ecological change, assess the role of human activity in securing a sustainable future. [20 marks]**

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END OF QUESTIONS

For Examiner's Use	
Section	Mark
A	
B	
C	
TOTAL	