OXFORD

INTERNATIONAL
AQA EXAMINATIONS

Please write clearly in block capitals.

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

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Candidate signature _____

I declare this is my own work.

INTERNATIONAL AS

GEOGRAPHY

Paper 1A Physical Geography 1 Hot Desert Systems and Landscapes

Monday 4 January 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 this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- All working must be shown.
- 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).
- 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 maximum mark for this paper is 80.
- 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	
6	
7	
8	
TOTAL	

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Section A – Living with Hazards

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

You must answer **all** of **Section A**.

Only **one** answer per question is allowed.

For each question completely fill in the circle alongside the appropriate 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. 

0 1 . 1 Seafloor spreading happens:

[1 mark]

A as a result of magma plumes away from plate margins, where hot spots of magma rise up and remain stationary whilst the plate moves above the plume.

B at constructive margins, as plates are dragged apart, where some of the youngest rocks on the Earth's surface are found.

C at extremely active conservative plate margins, when friction between plates leads to stresses along the boundary.

D when a continental plate meets a continental plate at a destructive plate margin, as the plates are of similar density.

0 1 . 2 One approach to land use zoning involves having low value land use in high risk areas to reduce the vulnerability of people. This is classed as:

[1 mark]

A adaptation.

B disaster aid.

C prediction.

D prevention.

Do not write outside the box

0 1 . 3 Which of the following are **all** environmental impacts of wildfires?

[1 mark]

A Destruction of schools, loss of livestock and impact on the greenhouse effect. ⬭

B Developing strategies for preparedness, reviewing laws and emergency service stress. ⬭

C Displacement of people, disruption to power supplies and injury. ⬭

D Impact on food webs, increase of carbon dioxide and depletion of nutrient stores. ⬭

0 1 . 4 A mixture of super-heated gas, volcanic rock and ash that travels at high speed down the sides of a volcano describes:

[1 mark]

A a lava flow. ⬭

B a mudflow. ⬭

C a pyroclastic flow. ⬭

D tephra. ⬭

0 1 . 5 Liquefaction happens when:

[1 mark]

A many small aftershocks reduce the stability and strength of buildings and infrastructure, such as bridges and roads. ⬭

B ocean floor earthquakes or submarine volcanoes push water up and onto the land. ⬭

C seismic vibrations of saturated soil cause the soil to act like a liquid and deform the ground. ⬭

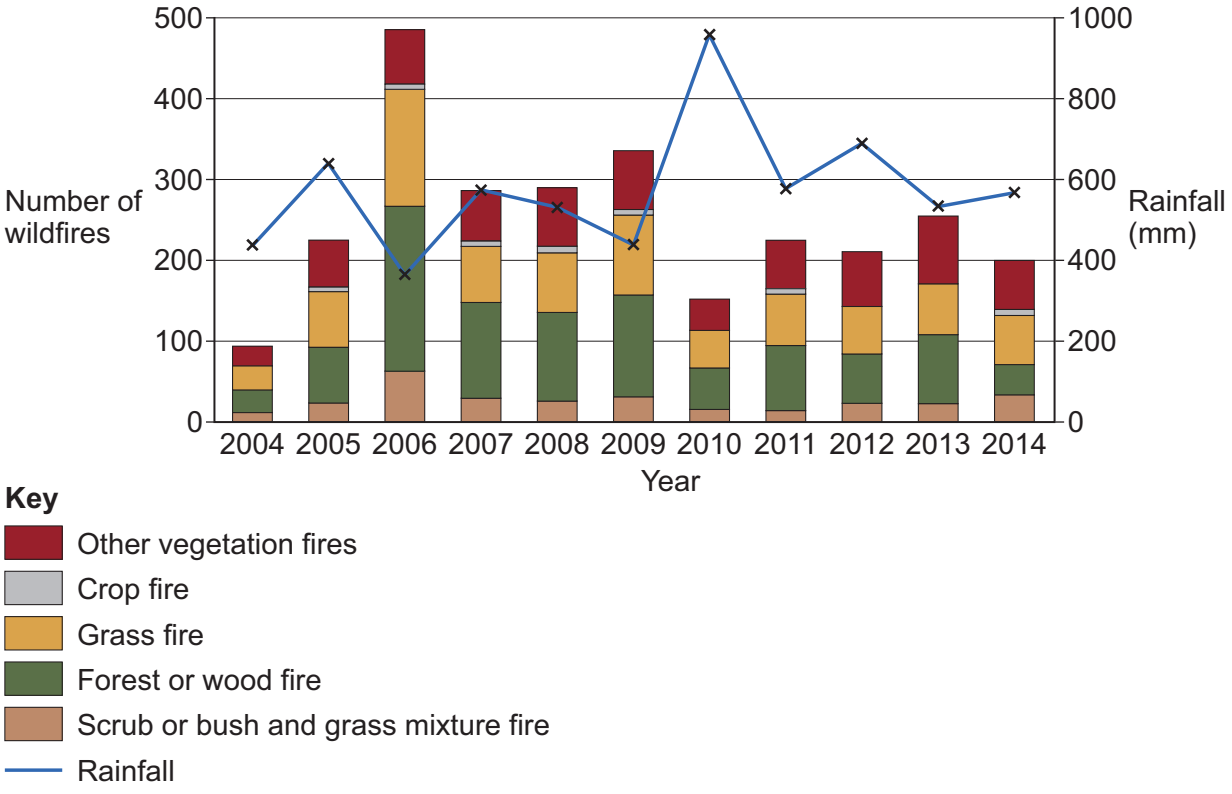
D the fastest seismic waves, called P waves, reach the surface and push the ground up. ⬭

5

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Figure 1 shows wildfires and rainfall in an area between 2004 and 2014.

Figure 1



0 2 Analyse the data shown in **Figure 1**.

[6 marks]

Do not write outside the box

Extra space

6

Turn over for the next question

Do not write outside the box

0 3 For a multi-hazardous environment that you have studied, assess the nature of the hazards and the relative risks they present.

[9 marks]

Extra space

9

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0 4 ‘The level of economic development is the most important factor in reducing the impact of, and aiding recovery from, tropical storms.’

Evaluate this statement with reference to examples you have studied.

[20 marks]

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Extra space

Do not write outside the box

20

END OF SECTION A

Turn over for Section B

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Section B – Hot Desert Systems and Landscapes

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

You must answer **all** of **Section B**.

Only **one** answer per question is allowed.

For each question completely fill in the circle alongside the appropriate 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. 

0 5 . 1 A barchan is:

[1 mark]

A a crescent shaped sand dune created by a strong, dominant wind direction. ⬭

B an area at the edge of a mountain range where sand accumulates once a river has dried up. ⬭

C an elongated linear sand dune found in isolation from other dunes. ⬭

D an eroded ridge up to 40 m high containing horizontal layers of rock. ⬭

0 5 . 2 Desert soils are typically:

[1 mark]

A high in levels of nutrients including soluble minerals; they often have a rich humus layer on top. ⬭

B highly impermeable, with a solid salt crust on the top due to limited evapotranspiration of water. ⬭

C red in colour with small loose particles, which are subject to oxidation and cannot retain water. ⬭

D very dry, composed of clay and yellow in colour, due to high levels of leaching of minerals. ⬭

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0 5 . 3 Within a desert system, solar radiation, precipitation and descending air are all classed as:

[1 mark]

A feedback. ⬭

B inputs. ⬭

C outputs. ⬭

D stores. ⬭

0 5 . 4 Which source of water in a hot desert has all the following characteristics?

- Flows intermittently.
- Can occur as a result of storm events.
- May be fed by mountain snow melt.
- Can vary dramatically and be important to erosion.
- Runs into channels.

[1 mark]

A Endoreic rivers. ⬭

B Ephemeral rivers. ⬭

C Exogenous rivers. ⬭

D Sheet flooding. ⬭

0 5 . 5 A steep sided gorge on the edge of high land in a desert formed by flash flooding after occasional rain storms, describes which feature?

[1 mark]

A Bahada. ⬭

B Inselberg. ⬭

C Wadi. ⬭

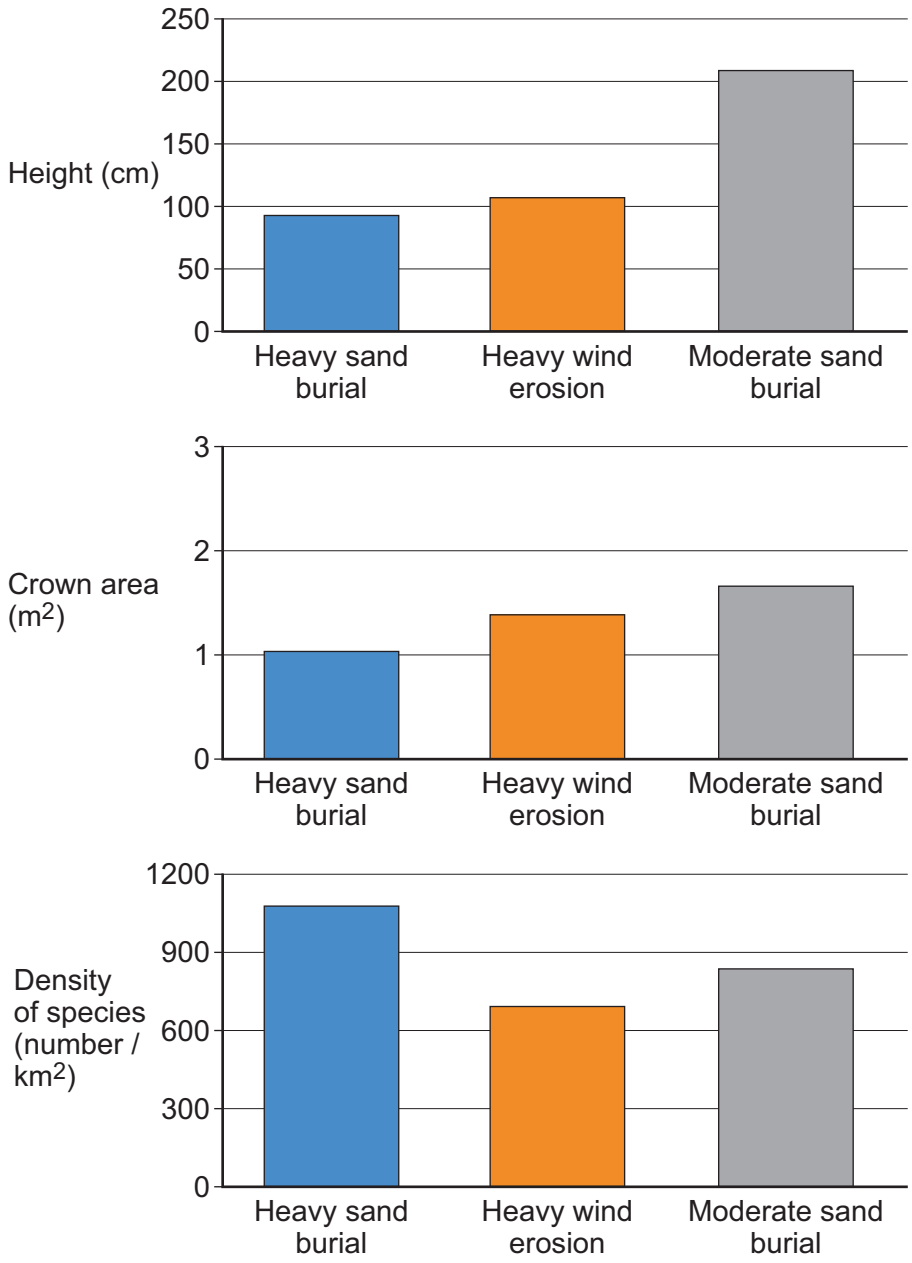
D Yardang. ⬭

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Figure 2 shows characteristics of 'calligonum mongolicum', a desert plant, in three different conditions.

Figure 2



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0 6 Analyse the data shown in **Figure 2**.

[6 marks]

Extra space

6

Turn over for the next question

Do not write outside the box

0 7 For a hot desert environment you have studied, evaluate the role of wind in shaping the landscape.

[9 marks]

Extra space

9

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0 8 With reference to a case study, to what extent are human impacts a greater cause of desertification than climate change?

[20 marks]

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Extra space

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20

END OF QUESTIONS

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ANSWER IN THE SPACES PROVIDED

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Question number	**Additional page, if required.** **Write the question numbers in the left-hand margin.**

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Question number	**Additional page, if required.** **Write the question numbers in the left-hand margin.**

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