

Please write clearly in block capitals.

Centre number

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Candidate number

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Surname

Forename(s)

Candidate signature

I declare this is my own work.

INTERNATIONAL AS GEOGRAPHY

Paper 1A Physical Geography 1 Hot Desert Systems and Landscapes

Friday 17 May 2024

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	



Section A – Living with Hazards

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

You must answer **all** questions in **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

Which of the following would lead to the formation of an island arc?

[1 mark]

- A An oceanic plate moving beneath a continental plate
- B Two continental plates moving towards each other
- C Two oceanic plates moving apart
- D Two oceanic plates moving towards each other

☐
☐
☐
☐

0 1 . 2

What does earthquake magnitude describe?

[1 mark]

- A How often an earthquake of a certain strength occurs
- B The number of earthquakes occurring within a time period
- C The predictability of an earthquake
- D The strength of an earthquake

☐
☐
☐
☐


0 1 . 3

Which of the following describes a storm surge?

[1 mark]

- A** A gust of wind reaching over 200 km/hour in strength
- B** A rise in sea level caused by a tropical storm
- C** A river flooding as a result of heavy rainfall
- D** A slope collapse as a result of heavy rainfall

☐☐☐☐

0 1 . 4

What is tephra?

[1 mark]

- A** Hot gas and ash erupted from a volcano
- B** Molten material erupting from a volcano
- C** Solid material ejected by a volcanic eruption
- D** Super-heated material rising up through the mantle

☐☐☐☐

0 1 . 5

An earthquake is an example of what type of hazard?

[1 mark]

- A** Atmospheric
- B** Biological
- C** Geophysical
- D** Hydrological

☐☐☐☐

5

Turn over ►



Figure 1 shows the number of wildfires in the United States between 1984 and 2020.

Figure 2 shows the average acres burned per wildfire in the United States between 1984 and 2020.

Figure 1

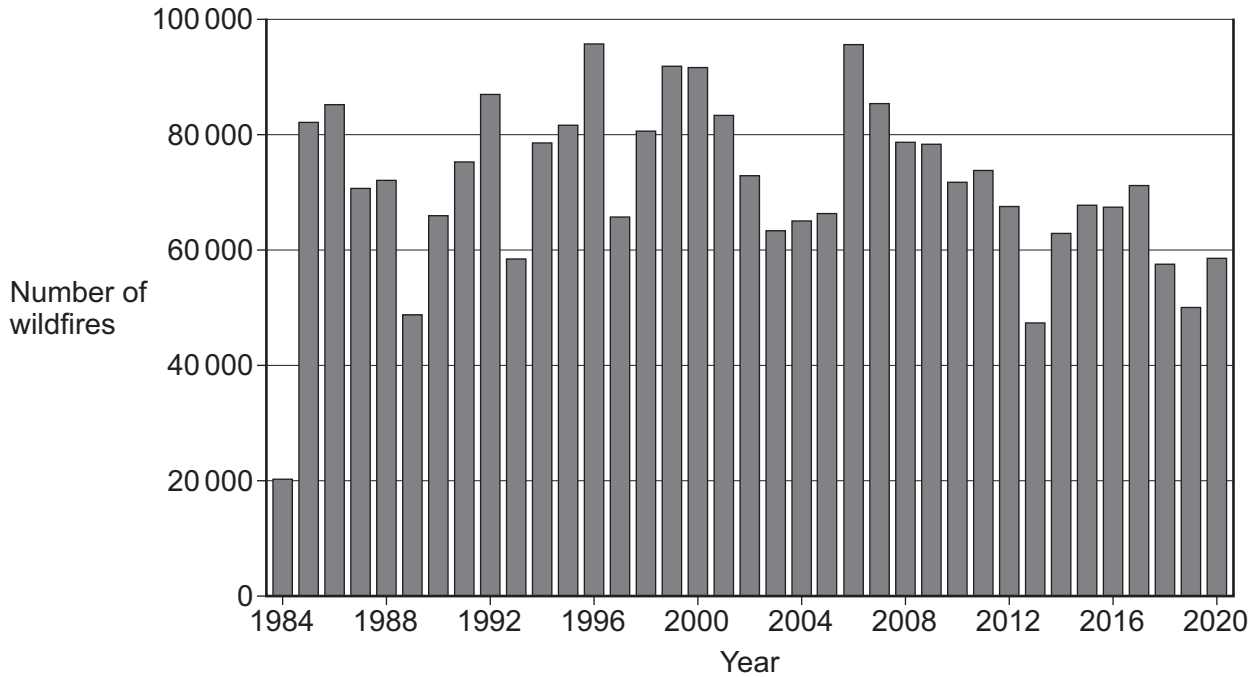
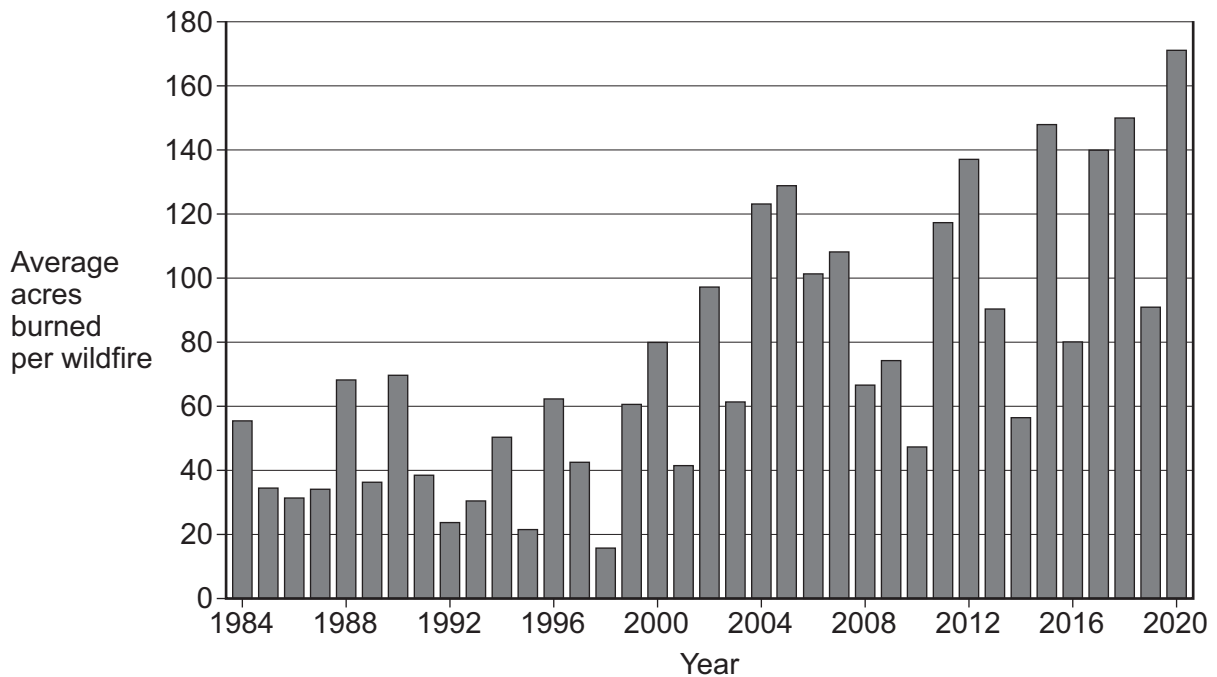


Figure 2



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

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Turn over ►



Assess the extent to which you agree with this statement.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



0 4

'The benefits of living in hazardous areas are greater than the costs.'

Evaluate this statement using one or more examples you have studied.

[20 marks]

Turn over ►



[illegible]



[illegible]

20

Turn over for Section B

Turn over ►



Section B – Hot Desert Systems and Landscapes

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

You must answer **all** questions in **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

Which of the following describes an endorheic river?

[1 mark]

A A river that can remain dry for years

☐

B A river that does not flow into the sea

☐

C A river that flows for short periods after heavy rainfall

☐

D A river that originates outside of a dry zone

☐

0 5 . 2

'A broad spread of alluvial material along the base of a mountain.'

This is a description of which of the following features?

[1 mark]

A Bahada

☐

B Playa

☐

C Ventifact

☐

D Yardang

☐


0 5 . 3

Which of the following is an example of a sediment store within a desert system?

[1 mark]

A Abrasion

☐

B Climate

☐

C Sief dune

☐

D Vegetation

☐

0 5 . 4

What is the maximum average annual rainfall that defines a desert?

[1 mark]

A 150 mm per year

☐

B 250 mm per year

☐

C 350 mm per year

☐

D 450 mm per year

☐

0 5 . 5

Which of the following expresses the water balance in hot deserts?

[1 mark]

A $\text{evapotranspiration} = \text{precipitation} + \text{runoff} - \text{soil water storage}$ ☐B $\text{precipitation} = \text{evapotranspiration} +/\text{-- soil water storage} + \text{runoff}$ ☐C $\text{precipitation} = \text{runoff} +/\text{-- soil water storage} - \text{evapotranspiration}$ ☐D $\text{soil water storage} = \text{precipitation} + \text{runoff} - \text{evapotranspiration}$ ☐

5

Turn over ►



Figure 3 shows the annual mean expansion of the Sahara Desert between 1900 and 2015.

Figure 4 shows precipitation anomalies in the Sahara Desert between 1900 and 2015.

Figure 3

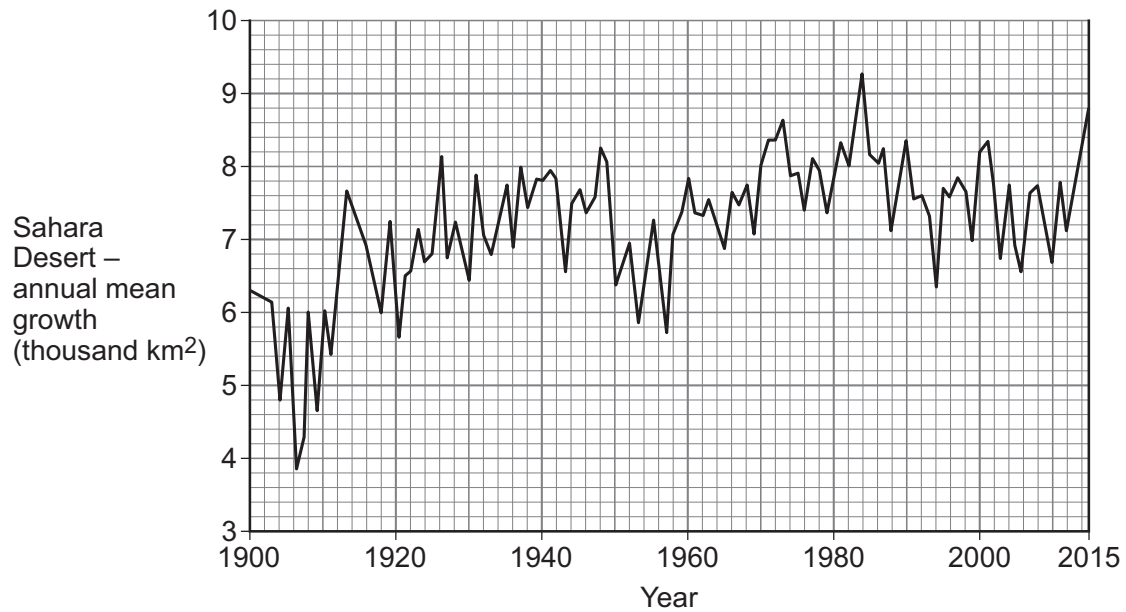
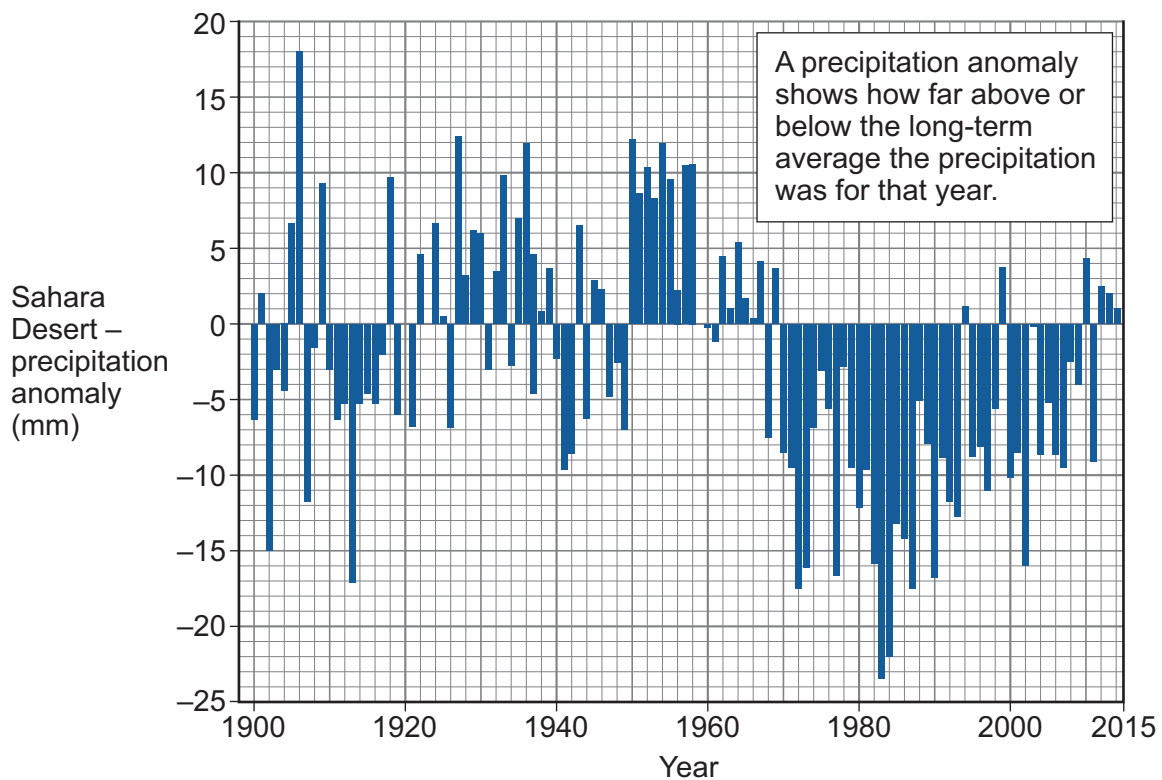


Figure 4



[6 marks]

Extra space _____

6

[9 marks]

[illegible]

Extra space _____



0 8

‘Responses to the problems of desertification are always successful.’

Evaluate this statement with reference to one or more examples you have studied.

[20 marks]

Turn over ►



[illegible]

Extra space _____



[illegible]

20

There are no questions printed on this page

*Do not write
outside the
box*

**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**



