OXFORD

INTERNATIONAL
AQA EXAMINATIONS

Please write clearly in block capitals.

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

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I declare this is my own work.

INTERNATIONAL AS

GEOGRAPHY

Paper 1A Physical Geography 1 Hot Desert Systems and Landscapes

Tuesday 3 January 2023 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	
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8	
TOTAL	

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Section A – Living with Hazards

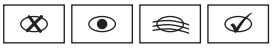
Answer **all** questions in the spaces provided.

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 describes how seismic hazards can trigger landslides?

[1 mark]

A Heavy rain associated with seismic events increases the moisture content of soils and increases their movement due to gravity. ⬭

B Seismic waves disrupt the friction that holds sediments together and this loosens the materials. ⬭

C Stresses in the lithosphere from seismic waves create fissures on flatter ground and soil slides into these areas. ⬭

D Water from a storm surge increases the water content in soils and makes it more prone to sliding. ⬭

0 1 . 2 'A combination of increased convectional rainfall and storm surges inundate areas with water.'

This statement explains the cause of which of these events associated with storm hazards?

[1 mark]

A Acid rain ⬭

B Coastal flooding ⬭

C Inland river flooding ⬭

D Liquefaction ⬭

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0 1 . 3 Age, social status and religious beliefs can all be determining factors of which characteristic of hazards?

[1 mark]

A Distribution ⬭

B Incidence ⬭

C Magnitude ⬭

D Perception ⬭

0 1 . 4 Which of the following describes the process of slab pull?

[1 mark]

A Following subduction the lithosphere sinks further into the mantle under its own weight. ⬭

B Gravity acting on the lithosphere at constructive margins moves the crust away from the margin. ⬭

C Movement of lithosphere away from ocean ridges pulls up the slabs of asthenosphere below. ⬭

D Subduction of oceanic lithosphere occurs at constructive margins pushing lithosphere towards trenches. ⬭

0 1 . 5

- They are found at destructive plate margins.
- They are formed when oceanic lithosphere is subducted.
- They have volcanic activity.

The three statements above describe which of the following?

[1 mark]

A Island arcs ⬭

B Magma plumes ⬭

C Ocean ridges ⬭

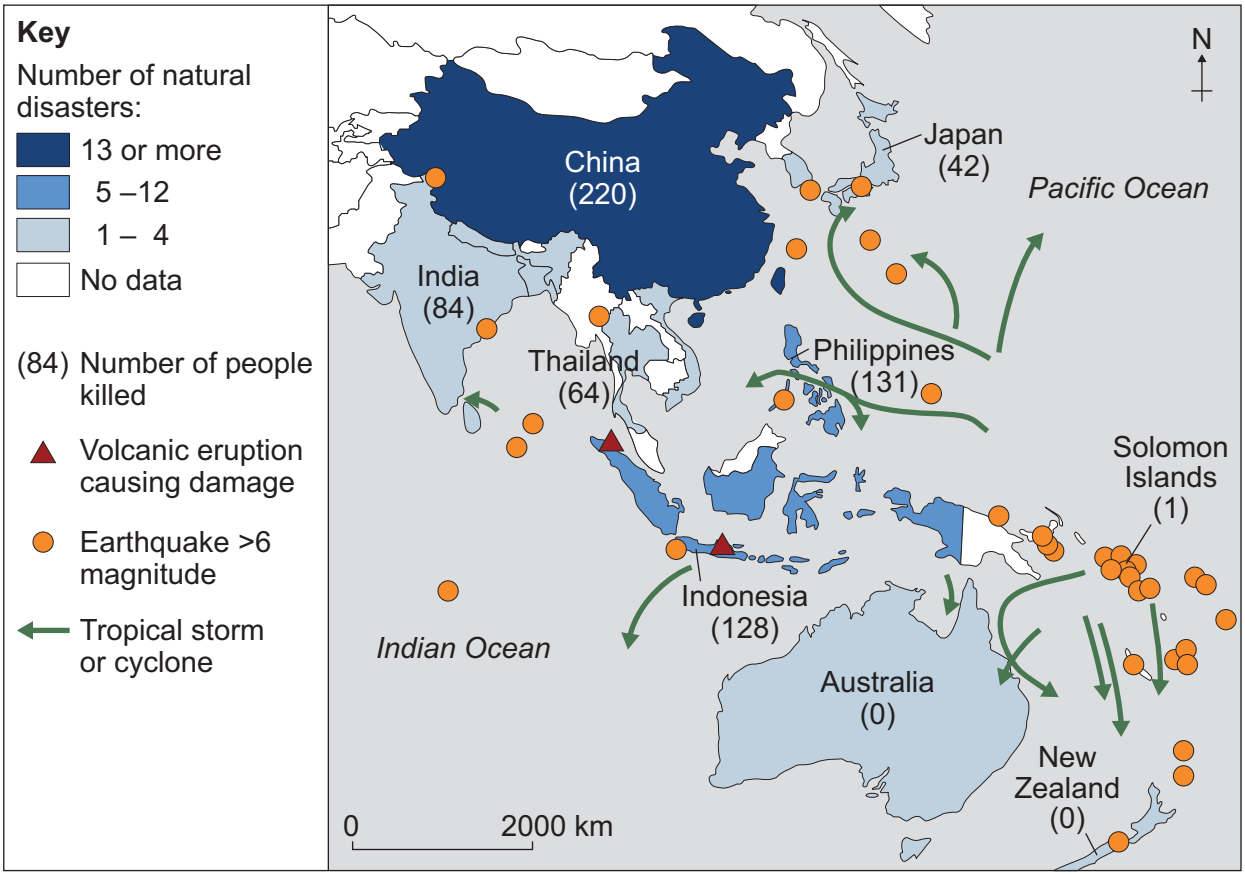
D Rift valleys ⬭

5

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Figure 1 shows natural disasters in the Asia-Pacific region from January to June 2014.

Figure 1



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

[6 marks]

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Extra space

6

0 3 ‘Preparation for tropical storm hazards reduces their impacts.’

Discuss the extent to which you agree with this statement. Use examples you have studied to support your answer.

[9 marks]

Do not write outside the box

Extra space

9

0 4 ‘The nature and underlying causes of volcanic hazards makes them easier to respond to and manage than wildfires.’

Evaluate this statement with reference to examples you have studied.

[20 marks]

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END OF SECTION A

20

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Turn over for Section B

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ANSWER IN THE SPACES PROVIDED

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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 are **all** processes of wind action?

[1 mark]

A Abrasion, ventifacts and wadis. ⬭

B Block disintegration, erosion and weathering. ⬭

C Deflation, saltation and surface creep. ⬭

D Deposition, suspension and thermal fracture. ⬭

0 5 . 2 Which of the following describes the typical water balance in hot deserts?

[1 mark]

A Long periods of soil water utilisation after peaks in annual potential evapotranspiration. ⬭

B Mean monthly potential evapotranspiration exceeds mean monthly precipitation. ⬭

C Months of higher precipitation lead to times of soil water deficit. ⬭

D Short periods of soil water deficit and longer periods of soil water recharge. ⬭

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0 5 . 3 Which areas are examples of sinks within a desert sediment budget?

[1 mark]

A Bahadas, areas within wadi floors, deposition within sand dune systems. ⬭

B Erosion of seif dunes, sheet flooding and barchans. ⬭

C Mass movement, transportation by wind, surface creep of sand dune systems. ⬭

D Suspension of sand grains, deflation and exfoliation. ⬭

0 5 . 4
- Small scale features found on desert pavements.
- Clearly eroded sides facing the direction of the prevailing wind.
- Abraded by sand particles carried within the wind.

The three statements above describe the characteristics and formation of which desert landform?

[1 mark]

A Deflation hollows ⬭

B Inselbergs ⬭

C Ventifacts ⬭

D Wadis ⬭

0 5 . 5 Which of the following describes the link between episodic rainfall and sheet flooding?

[1 mark]

A Exogenous rivers have their sources outside of the desert margins. High volumes of rainfall in these areas increase the river channel volume leading to overland flow. ⬭

B Fast-flowing water along river banks can wear away the sides of the stream. The channel widens to become a gully and erodes further, containing the water between the banks. ⬭

C Infrequent rainfall releases large volumes of water in short time periods. The baked soil means that the majority of this rainfall moves as overland flow across large flat areas. ⬭

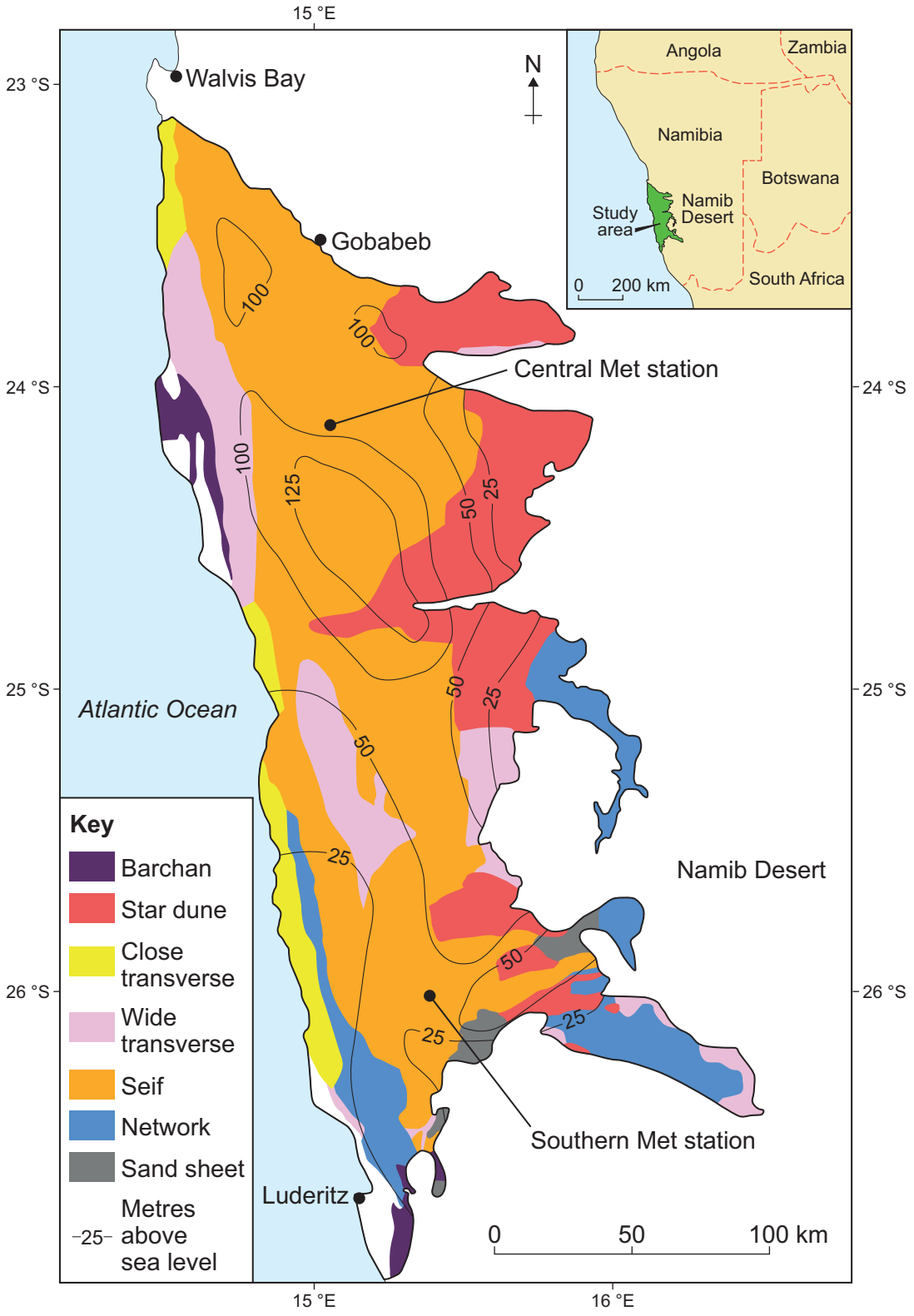
D Sporadic rainfall in desert regions creates intermittently flowing rivers. This creates ephemeral rivers which are powerful forces of erosion. ⬭

5

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Figure 2 shows the latitude, relief and distribution of sand dunes in a study area of the Namib Desert in southern Africa.

Figure 2



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

[6 marks]

Extra space

6

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0 7 Assess the extent to which desertification threatens sustainable development in an area you have studied.

[9 marks]

Extra space

Do not write outside the box

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0 8 For a hot desert environment you have studied, assess the extent to which the climatic characteristics influence the landforms found there.

[20 marks]

Turn over ▶

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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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