DRAFT SPECIMEN MATERIAL

AS GEOGRAPHY

Paper 1 Physical geography and people and the environment

Specimen Question Paper

Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:

- a pencil
- a rubber
- a ruler.

You may use a calculator.

Instructions

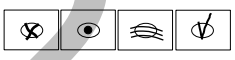
- Answer **either** Question 1 **or** Question 2 **or** Question 3 in Section A.
- Answer **either** Question 4 **or** Question 5 in Section B**.**

Information

- The total number of marks available for this paper is 80.

Advice

For the multiple-choice questions, 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. 

Please write clearly, in block capitals, to allow character computer recognition.

Centre number ☐☐☐☐☐ Candidate number ☐☐☐☐

Surname ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

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Candidate signature _____

Section A

Answer **one** question.

Answer **either** Question 1 **or** Question 2 **or** Question 3.

Shade the circle below to indicate which optional question you have answered.

Question 0 1 ⬭ Question 0 2 ⬭ Question 0 3 ⬭

CORRECT METHOD ⬬ WRONG METHODS ⊗ ⦿ ≈ √

Question 1 Water and carbon cycles

0 1 . 1 Which terms are associated with drainage basin land transfers?

A Evaporation, precipitation and transpiration. ⬭

B Infiltration, percolation and throughflow. ⬭

C Interception, condensation and evaporation. ⬭

D Lakes, river discharge and groundwater. ⬭

[1 mark]

0 1 . 2 Which is the natural or artificial process by which carbon dioxide is removed from the atmosphere and held in solid or liquid form?

A Carbon sequestration ⬭

B Combustion ⬭

C Compaction ⬭

D Photosynthesis ⬭

[1 mark]

0 1 . 3 What is a major factor responsible for driving change in the magnitude of carbon stores?

A Deforestation ⬭

B Diffusion ⬭

C Climate change ⬭

D Mass movement ⬭

[1 mark]

0 1 . 4 When is natural variation in the water cycle likely to occur?

A When a major dam project is undertaken which disrupts the flow of water through a drainage basin. ⬭

B When an earthquake triggers a tsunami. ⬭

C When global climate cools leading to increased amount of land-based ice storage. ⬭

D When widespread deforestation occurs leading to a disruption in convection rainfall. ⬭

[1 mark]

0 1 . 5 Name **one** process involved in the transfer of carbon.

A Decomposition ⬭

B Evaporation ⬭

C Runoff ⬭

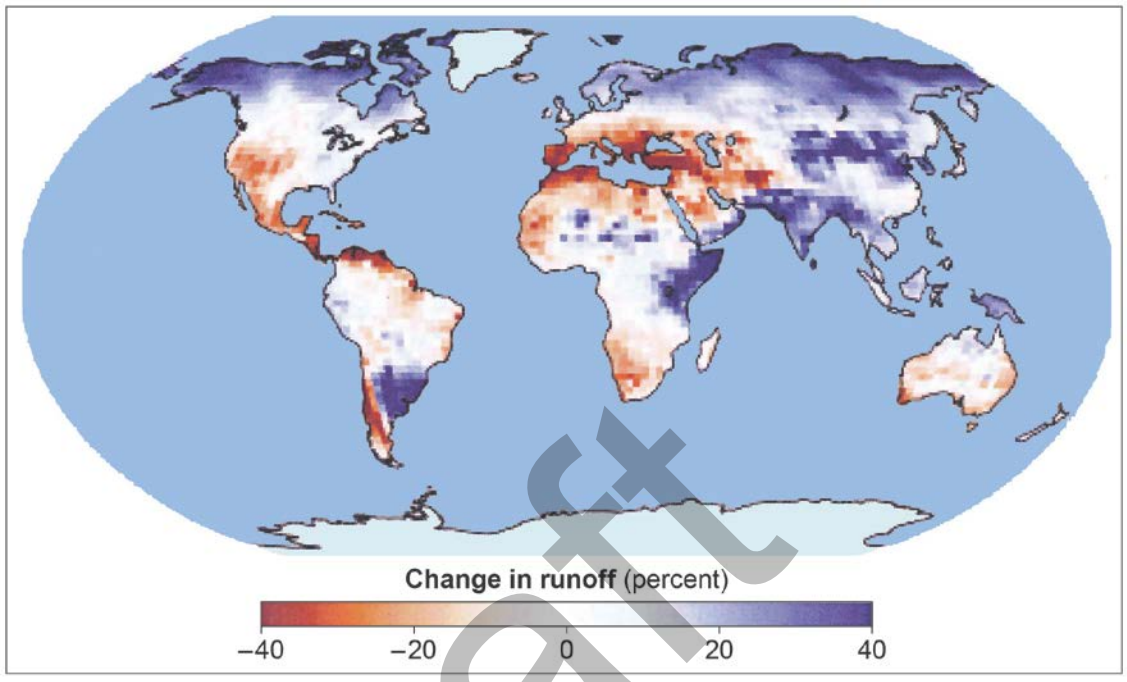
D Soil compaction ⬭

[1 mark]

Question 1 continues on the next page

Figure 1 shows anticipated changes in drainage basin runoff by the end of the 21st century.

Figure 1



0 1 . 6 Describe and comment on the main changes shown in **Figure 1**.

[8 marks]

0 1 . 7 Explain how land use change can affect the water cycle.

[9 marks]

0 1 . 8 With reference to a river catchment that you have studied, examine the impact of precipitation upon drainage basin stores and transfers.

[18 marks]

Extra space:

Question 2 Hot desert environments and their margins

0 2 . 1 What is a wadi the product of?

A Ancient courses of rivers, further developed by torrents after periods of heavy rain. ⬭

B Heavy rain which creates temporary lakes in desert areas. ⬭

C Strong winds over long periods which erode the landscape. ⬭

D Weathering of softer rocks which leaves these prominent features in the landscape. ⬭

[1 mark]

0 2 . 2 What is a depression in the land caused by weathering and wind erosion in hot deserts called?

A Deflation hollow ⬭

B Inselberg ⬭

C Pediment ⬭

D Yardang ⬭

[1 mark]

0 2 . 3 The erosional process of deflation can create which landform?

A Alluvial fans ⬭

B Badlands ⬭

C Desert pavements ⬭

D Sand dunes ⬭

[1 mark]

0 2 . 4 What are exogenous water supplies in deserts created by?

A A closed drainage basin that retains water. ⬭

B An underground supply of groundwater. ⬭

C A very heavy downpour caused by convection rainfall. ⬭

D Rivers which bring water from outside the area. ⬭

[1 mark]

0 2 . 5 Which of these will allow hot desert areas to become productive for human use?

A Building settlements away from rivers to avoid problems of flooding. ⬭

B Deforestation to create lots of fuelwood for local people. ⬭

C Irrigation schemes channelling water from nearby rivers. ⬭

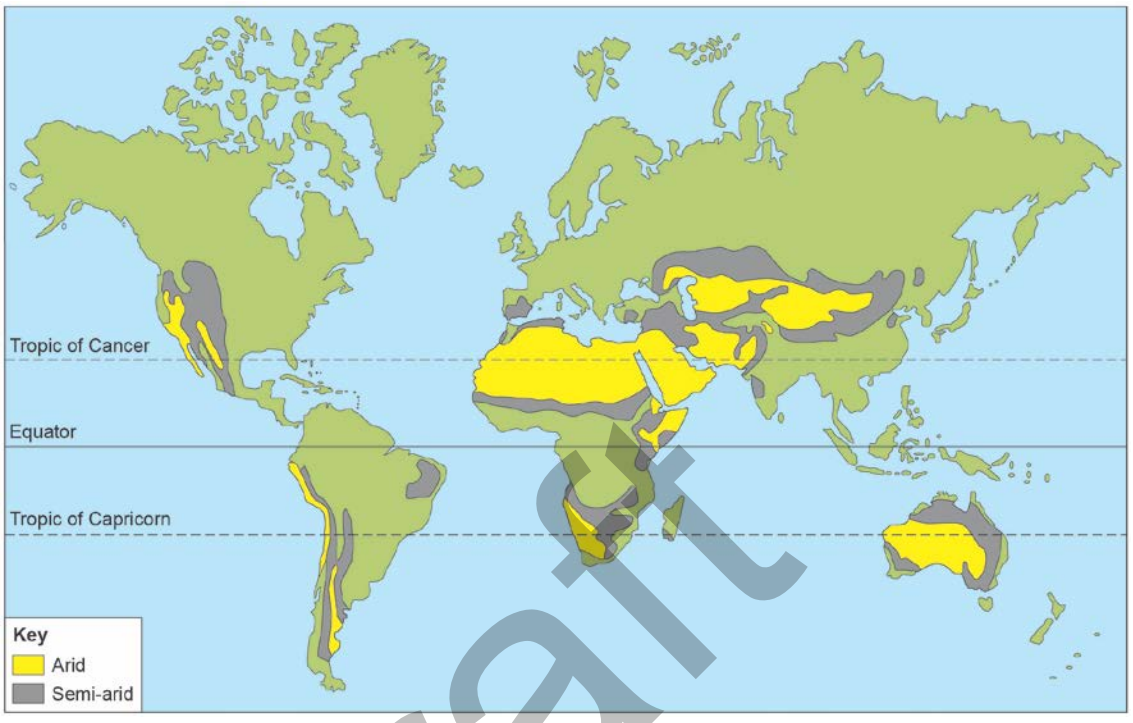
D Planting crops to support a growing population. ⬭

[1 mark]

Question 2 continues on the next page

Figure 2 shows the location of major world desert areas (arid) and areas at risk of desertification (semi-arid).

Figure 2



0 2 . 6 Describe and comment on the information shown in **Figure 2.**

[8 marks]

0 2 . 7 Explain the formation of **either** yardangs **or** zeugen.

[9 marks]

0 2 . 8 ‘Increasing desertification is inevitable in the coming decades.’

To what extent do you agree with this view?

[18 marks]

Extra space:

Question 3 Coastal systems and landscapes

0 3 . 1 Which process/activity can lead to isostatic sea level change?

A A global change in sea level. ⬭

B Human activity such as road building or mining. ⬭

C Rotational slumping. ⬭

D The melting of ice sheets on land areas. ⬭

[1 mark]

0 3 . 2 Which is the correct list of types of coastal erosion?

A Abrasion, attrition and saltation. ⬭

B Corrasion, hydraulic action and attrition. ⬭

C Freeze thaw action, exfoliation and rockfall. ⬭

D Suspension, traction and solution. ⬭

[1 mark]

0 3 . 3 Where do salt marshes tend to develop?

A At depositional coastlines exposed to longshore drift. ⬭

B In estuaries with an ample supply of sediment, often on the landward side of spits. ⬭

C In high energy environments which bring large waves and lots of sediment pushed into bays. ⬭

D In places where there has been an isostatic sea level change leading to deep water lagoons in which sediment collects. ⬭

[1 mark]

Question 3 continues on the next page

0 3 . 4 What are coastal stacks a product of?

A Arch collapse. ⬭

B Eustatic sea level change. ⬭

C Isostatic sea level change. ⬭

D Rotational slumping at the coastline. ⬭

[1 mark]

0 3 . 5 Which are common characteristics of constructive waves?

A High frequency, low wave height, more powerful backwash than swash. ⬭

B Low frequency, high wave height, more powerful swash than backwash. ⬭

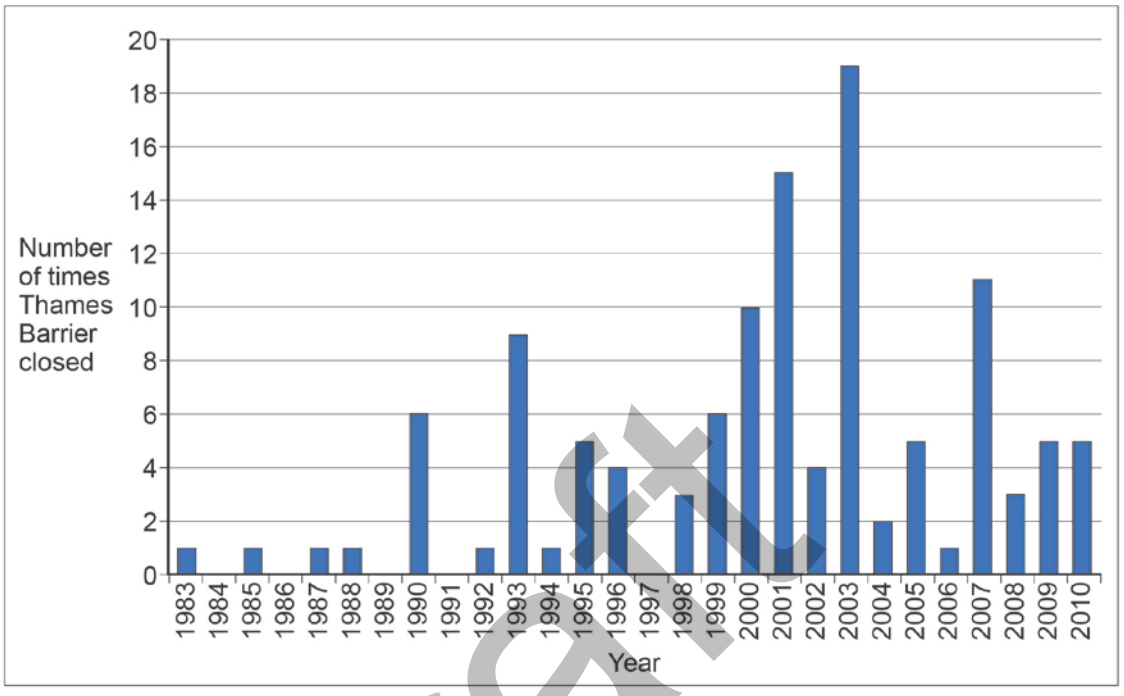
C Low frequency, high wave height, more powerful backwash than swash. ⬭

D Low frequency, low wave height, more powerful swash than backwash. ⬭

[1 mark]

The Thames Barrier is designed to protect London from flooding. **Figure 3** shows the number of times the barrier closed between 1983 and 2010.

Figure 3



0 3 . 6 Describe and comment on the information shown in **Figure 3**.

[8 marks]

0 3 . 7 Explain the formation of **one or more** submergent landforms associated with eustatic sea level change.

[9 marks]

0 3 . 8 'Coastal flooding and erosion are set to become an increasing challenge in many

coastal locations over the coming decades.'

To what extent do you agree with this view?

[18 marks]

Extra space:

Section B

Answer **one** question.

Answer **either** Question 4 **or** Question 5**.**

Shade the circle below to indicate which optional question you have answered.

Question 0 4 ⬭ Question 0 5 ⬭

CORRECT METHOD ⬬ WRONG METHODS ⊗ ⦿ ≈ ⊘

Question 4 Hazards

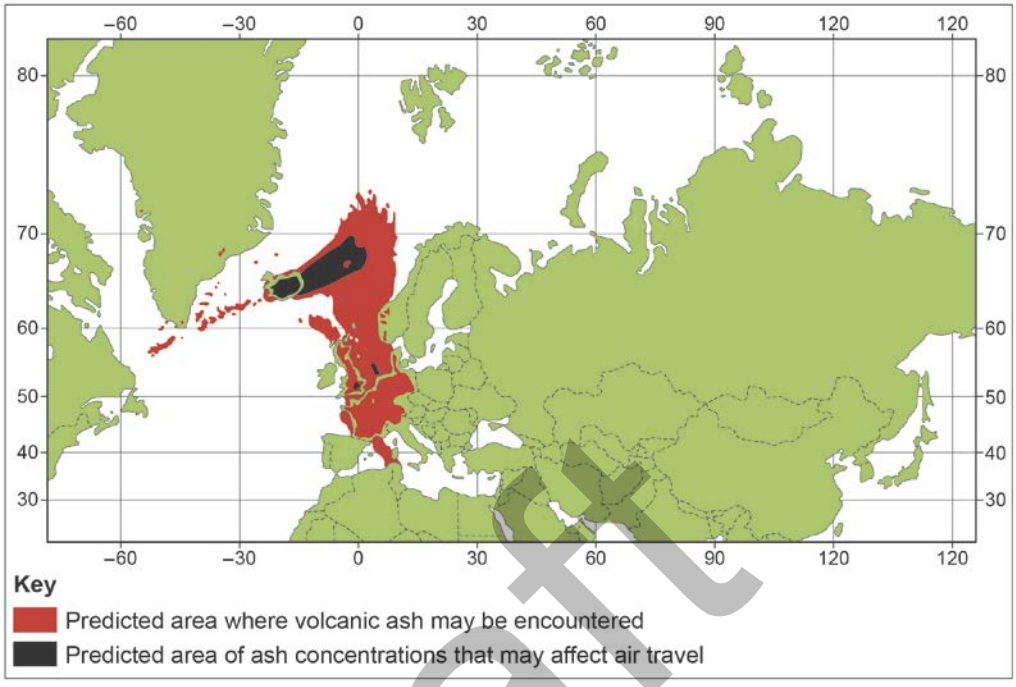
0 4 . 1 Outline the causes of seismic activity.

[4 marks]

Question 4 continues on the next page

Figure 4 shows information about an ash cloud following the eruption of an Icelandic volcano in 2010.

Figure 4



0 4 . 2 Using **Figure 4**, describe and comment on the potential impact of the ash cloud.

[6 marks]

0 4 . 3 Compare the economic impacts of **two** tropical storms that you have studied.

[6 marks]

0 4 . 4 Assess the responses to **one** tropical storm that you have studied.

[6 marks]

0 4 . 5 With reference to **one** seismic event that you have studied, evaluate the management of and responses to the event.

[18 marks]

Extra space:

Question 5 Contemporary urban environments

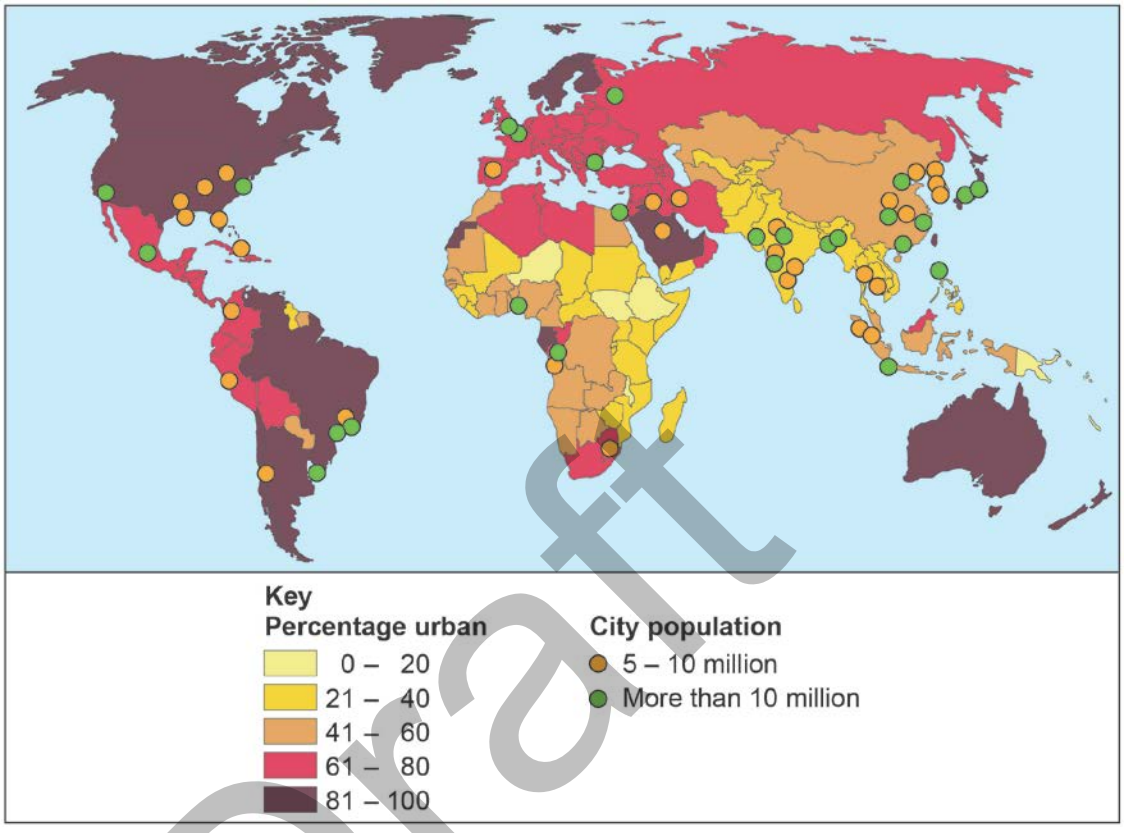
0 5 . 1 Outline reasons for the emergence of megacities.

[4 marks]

Question 5 continues on the next page

Figure 5 shows the percentage urban population by country and location of the world's largest cities in 2014.

Figure 5



0 5 . 2 Describe and comment on the patterns shown in **Figure 5**.

[6 marks]

0 5 . 3 Describe issues associated with economic inequality in urban areas.

[6 marks]

Question 5 continues on the next page

0 5 . 4 Explain the advantages of sustainable urban drainage systems (SUDS).

[6 marks]

0 5 . 5 Discuss the challenges and opportunities associated with improving air quality in urban areas.

[18 marks]

Extra space:

END OF QUESTIONS

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