SPECIMEN ASSESSMENT 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 sentence describes **one** impact of climate change upon global precipitation rates?

[1 mark]

A Increased cloud cover will mean lower temperatures and less evaporation, leading to less rainfall, falling in shorter bursts. ⬭

B Temperatures will rise leading to increased evaporation and higher amounts of rainfall in many places, with more intense bursts. ⬭

C Temperatures will rise leading to increased evaporation and lower amounts of more intermittent rainfall. ⬭

D The higher temperatures will cause the ice caps to melt putting more water into the oceans. Sea levels will rise and hurricanes will be more likely. ⬭

0 1 . 2 To what does the carbon budget refer?

[1 mark]

A The amount of carbon in the atmosphere at any one time. ⬭

B The balance of exchanges between the four major stores of carbon. ⬭

C The measurement of the quantity of transferred carbon between the land and ocean. ⬭

D The total quantity of the major stores of carbon. ⬭

0 1 . 3 Outline potential impacts of farming practices upon the water cycle.

[3 marks]

Question 1 continues on the next page

Figure 1 is a storm hydrograph taken over a period of three days.

Figure 1

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0 1 . 4 Complete **Figure 1** by adding the data shown in **Figure 2** below, and then analyse the impact of the rainfall upon the discharge.

[6 marks]

Figure 2

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Question 1 continues on the next page

0 1 . 5 Evaluate the view that human activity is having a greater impact than natural factors on the water cycle.

[9 marks]

0 1 . 6 To what extent do you agree that human activity is responsible for permanent changes to the carbon cycle in tropical rainforests?

[20 marks]

Question 1 continues on the next page

Question 2 Coastal systems and landscapes

0 2 . 1 Which process/activity can lead to isostatic sea level change?

[1 mark]

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. ⬭

0 2 . 2 Where do salt marshes tend to develop?

[1 mark]

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. ⬭

0 2 . 3 Outline the role of wind in affecting coastal energy.

[3 marks]

Question 2 continues on the next page

Figures 3 and **4** show information about areas at risk of flooding.

Figure 3

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Figure 4

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0 2 . 4 Using **Figure 3** and **Figure 4**, assess the extent of the flood risk in the area shown.

[6 marks]

Question 2 continues on the next page

0 2 . 5 Assess the importance of different sources of energy in the creation of coastal landscapes.

[9 marks]

0 2 . 6 ‘Coastal flooding and erosion will become a more common occurrence over the coming decades.’

To what extent do you agree with this view?

[20 marks]

Question 2 continues on the next page

Question 3 Glacial systems and landscapes

0 3 . 1 What is meant by internal deformation?

[1 mark]

A A type of weathering whereby ice breaks up rock into small fragments. ⬭

B A way in which cold based glaciers move under the force of gravity, where great downward pressure is placed upon ice crystals. ⬭

C A type of erosion which is responsible for the formation of meltwater channels as glaciers retreat. ⬭

D This is basal sliding whereby temperatures at the base of the glacier are above freezing point causing the ice to slide. ⬭

0 3 . 2 What is the connection between glacial troughs and hanging valleys?

[1 mark]

A As the trough is created, interlocking spurs are truncated and hanging valleys are left behind as the glacier retreats. ⬭

B As the glacier advances, massive amounts of debris are deposited at the snout, creating large hanging valleys. ⬭

C The corrie feeds the valley glacier with ice. As the ice advances over the lip of the corrie, this creates a hanging valley. ⬭

D Continuous freezing and thawing takes place daily. This leads to the formation of scree slopes and hanging valleys. ⬭

Question 3 continues on the next page

0 3 . 3 Distinguish between ablation and accumulation.

[3 marks]

Question 3 continues on the next page

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ANSWER IN THE SPACES PROVIDED

Figure 5 is a geomorphological map of an Icelandic glacier, Virkisjökull–Falljökull.

Figure 5

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0 3 . 4 With reference to **Figure 5**, interpret the evidence that this glacier is changing.

[6 marks]

Question 3 continues on the next page

0 3 . 5 Analyse the links between climate, process and landform which lead to the formation of periglacial landscapes.

[9 marks]

0 3 . 6 'The negative impact of human activity on upland glacial landscapes will increase in future.'

To what extent do you agree with this view?

[20 marks]

Question 3 continues on the next page

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 What is the distinction between primary and secondary impacts arising out of seismic events?

[1 mark]

A Primary impacts are those which cause the most damage whereas secondary impacts take longer to occur and generally have smaller impacts. ⬭

B Primary impacts are those which appear immediately following the event, such as fires. Secondary impacts come about as a result of the aftershocks, such as bridge collapse. ⬭

C Primary impacts are immediate and a direct result of the tremors. Secondary impacts arise in the aftermath and are a consequence of the primary impacts. ⬭

D Primary impacts link directly to the P Waves and the type of tremor which they cause. Secondary impacts are directly connected to the type of tremors associated with S Waves. ⬭

Question 4 continues on the next page

0 4 . 2 In what conditions do tropical storms tend to develop?

[1 mark]

A Cooler waters around 15 °C; high pressure conditions with rising air; approximately 20° either side of the equator; usually forming at the end of winter; diverging air masses have smaller impacts. ⬭

B Warm water around 25 °C; low pressure conditions with descending air; occurring along the equator; usually forming in spring; converging air masses. ⬭

C Warmer water around 20 °C; high pressure conditions with rising air; forming close to the equator; usually forming in summer; converging air masses. ⬭

D Warmer waters over 25 °C; low pressure conditions with rising air; forming 5°–10° either side of the equator; usually forming late summer; converging air masses. ⬭

0 4 . 3 Outline the characteristics of **one** hazard associated with volcanic eruptions.

[3 marks]

Question 4 continues on the next page

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Figure 6

An investigation is being conducted into the annual number of deaths from seismic activity.

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0 4 . 4 Calculate the mean and interquartile range for the data set in **Figure 6** and interpret your findings.

[6 marks]

$$\text{Upper quartile} = \frac{n+1}{4}$$

$$\text{Lower quartile} = \frac{n+1}{4} \times 3$$

$$\text{Interquartile range} = \text{upper quartile} - \text{lower quartile.}$$

$$n = \text{number in sample}$$

Question 4 continues on the next page

0 4 . 5 Evaluate the impact that a tropical storm has had on the character of a place that you have studied and how the storm has affected people's lived experience of this place after the storm.

[9 marks]

0 4 . 6 'The impact of seismic hazards is influenced by the level of development of the place affected.'

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

Question 4 continues on the next page

Question 5 Contemporary urban environments

0 5 . 1 Counter-urbanisation is:

[1 mark]

A Caused when the poor are pushed out of an area by gentrification. ⬭

B Movement of people back into a regenerated urban area. ⬭

C Movement of people from urban areas into surrounding rural areas. ⬭

D The flow of commuters into city in the morning then back to the suburbs in the evening. ⬭

0 5 . 2 What is the urban heat island effect?

[1 mark]

A Higher temperatures are found on large developed islands. The temperatures are higher because of the geographical location of the settlements near to the equator. ⬭

B The physical geography of some cities means that temperatures are higher than the surrounding areas e.g. where they lie on the coast with a warm onshore breeze. ⬭

C Small villages often have higher temperatures than the surrounding areas in the countryside. This is because of the effect of housing and lighting. ⬭

D Large cities have higher temperatures than the surrounding areas because of a variety of human activity. Dark surfaces absorb heat during the day and mass heating causes warming. ⬭

Question 5 continues on the next page

0 5 . 3 Outline reasons for the emergence of megacities.

[3 marks]

Question 5 continues on the next page

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Figure 7 shows the percentage of urban population by country and location of the world's largest cities in 2014.

Figure 7

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0 5 . 4 Using **Figure 7**, assess the extent to which there is a relationship between city size and percentage urban population.

[6 marks]

Question 5 continues on the next page

0 5 . 5 Evaluate the impact of migration on the character of a place that you have studied and people's lived experience of that place.

[9 marks]

0 5 . 6 ‘There are more challenges than opportunities associated with improving environmental quality in urban areas.’

To what extent do you agree with this view?

[20 marks]

Question 5 continues on the next page

END OF QUESTIONS

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