1.3 Plate Tectonics: Structure of the Earth and Types of Plate Margin: 10-minute Pack

AQA 8035 · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 State the type of plate boundary typically found at mid-ocean ridges, as illustrated in mid-ocean ridge settings.

(Total for Question 1 is 1 mark)

2 State whether the inner core is solid or liquid, and explain how heat released as the inner core grows contributes to convection in the liquid outer core.

(Total for Question 2 is 2 marks)

3 Name the three main layers of the Earth and state one physical property of each layer, as used in plate tectonics theory: crust, mantle and core.

(Total for Question 3 is 3 marks)

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4 Define the theory of plate tectonics as it is used in GCSE physical geography, naming the main components it explains.

(Total for Question 4 is 2 marks)

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5 An illustrative dataset in the prompt states: 'In a ten-year period, 1,200 recorded earthquakes occurred on the Pacific Ring of Fire out of 2,000 recorded globally.' Calculate the percentage of recorded earthquakes that occurred on the Pacific Ring of Fire during that period. Give your answer to one decimal place.

(Total for Question 5 is 2 marks)

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Mark scheme · 1.3 Plate Tectonics: Structure of the Earth and Types of Plate Margin: 10-minute Pack

Question 1

constructive (divergent) plate boundary **B1**

Answer: Constructive (divergent) plate boundary.

Question 2

inner core is solid **B1**

heat released as the inner core grows helps drive convection in the liquid outer core, oe **B1**

Answer: The inner core is solid. Heat released as it grows contributes to convection in the liquid outer core.

Question 3

crust named with a correct property, e.g. thin, rigid outer layer or composed of continental or oceanic rock, oe **B1**

mantle named with a correct property, e.g. a thick layer of predominantly solid rock that flows slowly, oe **B1**

core named with a correct property, e.g. very hot, dense inner region divided into solid inner core and liquid outer core, oe **B1**

Answer: Crust: thin, rigid outer layer (continental or oceanic rock). Mantle: thick layer of predominantly solid rock that flows slowly. Core: very hot, dense metallic centre (solid inner core and liquid outer core).

Question 4

plate tectonics is the theory that the Earth's lithosphere is divided into plates that move relative to each other, oe **B1**

it explains features and processes such as earthquakes, volcanoes and mountain building at plate margins, oe **B1**

Answer: Plate tectonics is the theory that the Earth's rigid lithosphere is broken into plates that move over predominantly solid, slowly deforming mantle; it explains earthquakes, volcanoes and mountain building at plate margins.

Question 5

1200 / 2000 seen or implied, oe **M1**

60.0% cao **A1**

Answer: 60.0%.

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