1.6 Reducing Tectonic Hazard Risk: Monitoring, Prediction, Protection, Planning: 10-minute Pack

AQA 8035 · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Give one example of a planning measure taken around an active volcano that restricts access to the most dangerous areas.

(Total for Question 1 is 1 mark)

2 State what is meant by a seismometer when used in earthquake monitoring.

(Total for Question 2 is 2 marks)

3 Describe how automatic gas shut-off valves reduce secondary hazards during an earthquake.

(Total for Question 3 is 2 marks)

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4 Give two reasons why insurance schemes and international aid agreements are useful planning strategies for reducing the impact of a tectonic disaster on an affected community.

(Total for Question 4 is 2 marks)

5 A country's national geological agency reports the number of operational seismic monitoring stations rose from 40 in 2005 to 64 in 2015. Calculate the percentage increase in the number of monitoring stations between 2005 and 2015.

(Total for Question 5 is 2 marks)

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Mark scheme · 1.6 Reducing Tectonic Hazard Risk: Monitoring, Prediction, Protection, Planning: 10-minute Pack

Question 1

any one correct example, e.g. an exclusion zone around the crater, temporary no-go zones, restricted access to valleys at risk from lahars, oe **B1**

Answer: An exclusion zone around the crater (also accept temporary no-go zones or restricted access to valleys at risk from lahars).

Question 2

an instrument that detects and records ground vibrations/earthquake waves, oe **B1**

it gives data on the time, strength and location of seismic events, oe **B1**

Answer: A seismometer is an instrument that detects and records ground vibrations or earthquake waves; it provides data on the time, strength and location of seismic events.

Question 3

automatic valves detect strong shaking and close gas supply pipes, oe **B1**

this prevents gas leaks and reduces the risk of fires and explosions after a quake, protecting people and property, oe **B1**

Answer: Automatic gas shut-off valves detect strong shaking and close gas supply pipes, preventing leaks and reducing the risk of fires and explosions after an earthquake, thus protecting people and property.

Question 4

insurance provides a payout after a disaster that funds the rebuilding of homes, infrastructure and services more quickly, oe **B1**

international aid (e.g. emergency supplies, funding or expertise from other countries or aid organisations) helps affected communities recover, particularly where a country has fewer resources of its own, oe **B1**

Answer: Insurance provides a payout that funds faster rebuilding of homes, infrastructure and services, and international aid (emergency supplies, funding or expertise from other countries or aid organisations) helps communities recover, particularly where a country has fewer resources of its own.

Question 5

(64 - 40) / 40 x 100 seen, oe **M1**

60% cao **A1**

Answer: 60%.

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