1.10 Tectonic Hazards: 10-minute Pack

AQA 8035 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 State whether each effect of an earthquake below is a PRIMARY effect (caused directly by the ground shaking) or a SECONDARY effect (occurs as a result of the primary effects, often after a delay).

(a) Buildings and bridges collapse. **(1)**

(b) A tsunami floods coastal areas. **(1)**

(c) The ground shakes and cracks appear in roads. **(1)**

(d) Disease spreads due to a lack of clean water and damaged sewers. **(1)**

(Total for Question 1 is 4 marks)

2 State what is meant by 'hazard risk', and state TWO factors that can affect the level of risk from a tectonic hazard.

(Total for Question 2 is 3 marks)

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3 Explain how building design can reduce the risk to people from an earthquake.

(Total for Question 3 is 3 marks)

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Mark scheme · 1.10 Tectonic Hazards: 10-minute Pack

Question 1

(a) primary effect **B1**

(a) Answer: Primary effect.

(b) secondary effect **B1**

(b) Answer: Secondary effect.

(c) primary effect **B1**

(c) Answer: Primary effect.

(d) secondary effect **B1**

(d) Answer: Secondary effect.

Question 2

hazard risk is the probability/chance that people will be negatively affected by a hazardous event, oe **B1**

factor 1, e.g. the level of development of the country/area, oe **B1**

factor 2, e.g. the population density or degree of urbanisation in the hazard zone, oe **B1**

Answer: Hazard risk is the probability that people will be affected by a hazardous event; it is affected by factors such as a country's level of development and the population density of the area at risk.

Question 3

buildings can be designed with a flexible frame/cross-bracing that can absorb and dissipate the shaking, oe **B1**

buildings can be built on base isolators (large rubber/shock absorbers), which reduce the shaking transferred from the ground to the building, oe **B1**

this reduces the chance of the building collapsing, reducing deaths and injuries, oe **B1**

Answer: Buildings can be designed with flexible frames or base isolators that absorb or reduce the ground shaking, making them less likely to collapse.

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