

Hazards: The nature of seismicity – forms and causes 3.1.5.4

| Q1 | Match the terms with their process description | |
|---|---|--|
| A | When the weight of glaciers is lifted and land subsequently uplifts | |
| B | When soft sediments behave like a liquid due to ground tremors | |
| C | When pressure built up between two plates is released | |
| D | When a denser tectonic plate is forced under a less dense one | |
| E | The resultant giant waves caused by submarine earthquakes | |
| F | Slope failure and mass movement due to ground tremors | |
| Select from: landslides subduction earthquake liquefaction isostatic recoil tsunami | | |

| Q2 | Tick whether these are primary or secondary seismic hazards | Primary | Secondary |
|----|--|----------------|------------------|
| A | The resultant giant waves caused by submarine earthquakes | | |
| B | Slope failure and landslides due to ground tremors | | |
| C | When pressure built up between two plates is released | | |
| D | When shaking causes loose snow to avalanche downslope | | |
| E | When soft sediments behave like a liquid due to ground tremors | | |

| Q3 | Tick the 2 factors out of each trio that will be most influential in the following processes | | | |
|----|---|---------------------------|-------------------------------|--------------------------------|
| A | Avalanches | Depth of snow | Strength of earthquake | Rock type |
| | | | | |
| B | Landslides | Angle of slope | Altitude of mountain | Strength of earthquake |
| | | | | |
| C | Liquefaction | Water content | Distance inland | Depth of soft sediments |
| | | | | |
| D | Earthquake intensity | Depth of focus | Population density | Distance to epicentre |
| | | | | |
| E | Tsunami | Proximity to coast | Depth of focus | Strength of earthquake |
| | | | | |

Hazards: The nature of seismicity – forms and causes 3.1.5.4

| | | |
|----|--|--|
| Q4 | <i>How would seismic processes be different along the Pacific Basin if these variables were changed?</i> | |
| | <i>Strength of earthquakes</i> | <i>Damage and death toll from earthquakes</i> |
| | If the plates were moving apart... | If all the countries surrounding the Pacific were wealthy... |
| | <i>Height of tsunami waves</i> | <i>The Pacific Basin landscape</i> |
| | If the area was on a conservative plate margin... | If the plates were moving apart... |

| | | |
|----|---|--|
| Q5 | <i>Compare and contrast the following characteristics of seismic processes on constructive and destructive plate margins.</i> | |
| | <i>Magnitude of earthquakes:</i> | |
| | <i>Frequency of seismic events:</i> | |
| | <i>Probability of tsunamis:</i> | |