

# Advanced Natural Disaster Knowledge

Natural Disasters · Answer Key · 18 Questions

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**1. Which scale, now largely superseded by the Moment Magnitude Scale (Mw), measures the energy release of an earthquake based on the amplitude of the largest seismic wave?**

- A) Modified Mercalli Scale
- B) Richter Scale**
- C) Saffir-Simpson Scale
- D) Fujita Scale

**2. In 1970, the Bhola cyclone struck which region, resulting in one of the deadliest tropical cyclones ever recorded?**

- A) The Philippines
- B) East Pakistan (Bangladesh)**
- C) Myanmar
- D) Vietnam

**3. What is the specific name for the phenomenon where saturated soil loses its strength and stiffness in response to applied stress, usually earthquake shaking?**

- A) Liquefaction**
- B) Subduction
- C) Tectonic Uplift
- D) Mass Wasting

**4. The 1815 eruption of Mount Tambora, which caused the 'Year Without a Summer' in 1816, is classified at what level on the Volcanic Explosivity Index (VEI)?**

- A) VEI 5
- B) VEI 6
- C) VEI 7**
- D) VEI 8

**5. Which meteorological term describes a rapid, localized downdraft that creates damaging straight-line winds, often associated with thunderstorms?**

- A) Microburst**
- B) Supercell
- C) Wall cloud
- D) Squall line

**6. What is the name of the deep ocean trench off the coast of Japan that is a primary source of high-magnitude megathrust earthquakes?**

- A) Java Trench
- B) Mariana Trench
- C) Japan Trench**
- D) Peru-Chile Trench

**7. The 1931 China floods, considered one of the deadliest natural disasters in history, primarily affected which river basins?**

- A) Mekong and Salween
- B) Yangtze and Huai**
- C) Indus and Ganges
- D) Yellow and Pearl

**8. Which type of fault is the San Andreas Fault in California, characterized by horizontal motion where crustal plates slide past each other?**

- A) Normal fault
- B) Reverse fault
- C) Strike-slip fault**
- D) Thrust fault

**9. What specific condition defines an 'extratropical cyclone' compared to a 'tropical cyclone'?**

- A) It develops in warmer ocean waters
- B) It derives energy from horizontal temperature gradients**
- C) It lacks a defined eye
- D) It occurs exclusively in the Southern Hemisphere

**10. The Great Fire of London in 1666 was exacerbated by what specific type of environmental condition?**

- A) Unusually low humidity and strong winds
- B) A prolonged period of drought**
- C) An unusually hot summer
- D) An extreme heatwave

**11. In the context of tsunamis, what is the term for the initial withdrawal of the ocean from the shoreline before the first crest arrives?**

- A) Drawback
- B) Drawdown**
- C) Seiche
- D) Bore

**12. Which volcanic feature is formed by the collapse of a volcano into itself, usually triggered by the emptying of the magma chamber during a massive eruption?**

- A) Lava dome
- B) Caldera**
- C) Cinder cone
- D) Fumarole

**13. What is the name of the wind-driven ocean current that, when weakened, is associated with the El Niño climate pattern and increased disaster risk in certain regions?**

- A) Gulf Stream
- B) Kuroshio Current
- C) Walker Circulation**
- D) Thermohaline circulation

**14. Which greenhouse gas, often released in massive quantities during a 'limnic eruption' of a crater lake, is responsible for suffocating surrounding life?**

- A) Methane
- B) Carbon dioxide**
- C) Sulfur dioxide
- D) Nitrogen oxide

**15. What is the professional term for the study of past earthquake activity, often involving the analysis of sediment layers?**

- A) Seismology
- B) Paleoseismology**
- C) Tectonics
- D) Geomorphology

**16. The 'Duster' or the 'Dirty Thirties' refers to the environmental disaster known as:**

- A) The Great Smog of London
- B) The Dust Bowl**
- C) The Year Without a Summer
- D) The Irish Potato Famine

**17. What differentiates a 'flash flood' from a regular flood?**

- A) The source of the water
- B) The speed of onset, typically within six hours of the causative event**
- C) The geographical location
- D) The total volume of water displaced

**18. Which classification system is used to estimate the intensity of a tornado based on the damage it inflicts on structures and vegetation?**

A) Saffir-Simpson Scale

**B) Enhanced Fujita Scale**

C) Beaufort Scale

D) Torro Scale