Name _____

People & Earthquakes (p. 313 – 319)

I. Earthquake Activity

1. **Define the term seismologist.**

   Seismologist – scientist who studies earthquakes + seismic waves

2. **Define the term magnitude.**

   Magnitude – measure of energy released of an earthquake

Largest Earthquakes

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3. **Identify the scale used to assess the magnitude strength of earthquakes.**

   Richter Scale (No upper limit)

4. **For every increase of 1.0 on the Richter Scale, how much greater is the magnitude?**

   10 X

   How much greater is the total energy released?

   32 X

   Moment Magnitude – total energy released (usually reported over Richter) → Seismic waves + fault movement

5. **Most earthquakes have magnitudes that are too low to be felt by humans.**

   Circle One : True False

6. **Define the term Modified Mercalli Intensity Scale.**

   Modified Mercalli Intensity Scale – describes the intensity of an earthquake using the amount of structural + geologic damage (12-point scale)

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7. **List four factors used to assess damage using the Modified Mercalli Intensity Scale.**

   1. Strength of the earthquake
   2. Nature of surface material
   3. Design of structures
   4. Distance from epicenter

8. **Define the term liquefaction.**

   Liquefaction – process in which earthquake shaking turns loose, soft soil into liquid mud (usually soil is full of moisture)
   * Buildings sink + pull apart *
   * Homes should be anchored to solid rock *

Name _____

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9. Define the term tsunamis.

Tsunamis – large ocean waves usually caused by strong earthquakes below the ocean floor

Tsunami of 2004

- can reach 100 ft. on shore
- can travel 1000's of miles inland
- megatsunamis
  - 500+ mph
  - landslides (Alaska, Africa)

10. What happens to the shoreline water just before a tsunami crashes onto the shore?

Moves rapidly towards the sea (exposes land)

11. How does the Pacific Tsunami Warning Center help people? (Hilo, Hawaii)

Alert people if a tsunami is likely to occur

II. Earthquake Safety

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1. Circle the letter of the area where the risk of earthquakes is highest in the United States.

a. along the Gulf Of Mexico
b. along the Atlantic Coast
c. along the Great Lakes
d. along the Pacific Coast

Most Earthquakes = California

2. What kinds of damage are caused by the severe shaking of an earthquake?

1. Buildings 2. Bridges 3. Utility Poles
4. Gas + Water Mains

3. Define the term moorings.

Buildings = Short, Wide Base

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Moorings – building supports consisting of alternating layers of rubber + steel (shock absorbers)

4. How can tall furniture be prevented from tipping over in an earthquake?

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Fasten it to wall studs

5. How can bedrooms be made safer during an earthquake?

1. Remove heavy items from walls 2. Position bed away from windows

6. What is the main danger to people during an earthquake?

Falling objects + Flying glass

7. If no table is available during an earthquake, you should crouch against an ~~outside~~ inside wall.

Circle One : True **False**

8. If you are outdoors during an earthquake, you should move ~~under a tree or building~~ to an open area.

Circle One : True **False**