Name _____

Building Resilience: Designing for Earthquake Safety

Multiple Choice Questions

1. What are the two primary forces that the shaking ground exerts on structures during an earthquake?

a) Lateral forces and vertical forces

b) Compression forces and tension forces

c) Shear forces and bending forces

d) Torsion forces and torsional forces

2. Which earthquake-resistant design technique involves placing a building on flexible bearings or isolators?

a) Base isolation

b) Reinforced concrete

c) Tuned mass dampers

d) Bracing and shear walls

3. What is the purpose of tuned mass dampers in earthquake-resistant design?

a) To absorb and dissipate seismic forces

b) To reinforce the building's core

c) To add structural support

d) To prevent lateral forces

4. Which materials are commonly used to enhance earthquake resistance in building construction?

a) Wood and glass

b) Brick and mortar

c) Reinforced concrete and steel

d) Plastic and aluminum

5. What is the primary function of bracing systems and shear walls in earthquake-resistant design?

a) To counteract swaying motion

b) To reinforce the building's foundation

c) To absorb seismic waves

d) To increase the building's height