Structures Level 3 Quiz - Answer Key

1. What were the earliest materials used for building bridges?

Select one:

1. Wood, Steel, and Concrete
2. Trees, Rocks, and Vines
3. Sand, Cement, and Stone
4. Girders and Beams
5. What caused the collapse of the Kansas City indoor walkway in 1981?

 Select one:

1. Earthquake
2. Faulty design and structural stress
3. Corrosion of materials
4. Overloaded piers
5. Which force involves tearing and sliding actions on a bridge?

 Select one:

1. Compression
2. Torsion
3. Shear
4. Bending
5. What is the primary issue with using early natural materials for bridges?

 Select one:

1. Lack of flexibility
2. Heavy weight
3. Susceptibility to rot and deterioration
4. High cost
5. Which modern material is excellent under compressive forces but weak under tensile forces?

 Select one:

1. Steel
2. Concrete
3. Aluminum
4. Timber
5. What type of bridge is the least expensive and easiest to build?

 Select one:

1. Suspension bridge
2. Arch bridge
3. Truss bridge
4. Beam bridge
5. What feature of suspension bridges allows them to cover very long distances?

 Select one:

1. Beam structures
2. Curved abutments
3. Suspended road surface with cables
4. Solid piers resting on bedrock
5. Which type of bridge was used by the Romans for aqueducts?

 Select one:

1. Suspension bridge
2. Arch bridge
3. Beam bridge
4. Truss bridge
5. What is a box girder bridge known for?

 Select one:

1. Simplicity and low cost
2. Wind resistance and rigidity
3. Use of cables for suspension
4. Decorative designs
5. What are caissons used for in bridge construction?

Select one:

1. As a structural material for towers
2. To distribute loads to abutments
3. For underwater bridge foundations
4. To anchor suspension cables