

## **Forces on Structures and Mechanisms Test Review**

Define the following words using your notes and textbooks:

1. force
2. complex machine
3. static load
4. dynamic load
5. gravity
6. compression
7. tension
8. torsion
9. shear
10. simple machine

Answer the following questions using complete sentences.

1. What determines the effect of a force on a structure?
2. What is the difference between an internal force and an external force?
3. List 5 examples of internal forces.
4. List 5 examples of external forces.
5. When is a structure ready to be built?
6. Make a list of the simple machines discussed in class and describe them.  
Provide examples for each simple machine.
7. What are the 4 key methods to ensure that a structure can withstand the external forces that will be acting on it?
8. Explain how a natural phenomena can effect structures. Provide one detailed example that happened in real life and how it effected that society.
9. How do you calculate mechanical advantage?