Applications of ECG and EMG Post-Quiz Answer Key

**Directions**

Answer the following questions the best you can.

1. List and describe a heart disease that can be detected by an ECG:
   - **Heart arrhythmia**: irregular heart rate that can lead to further complications such as stroke or heart failure
   
   **OR**

   - **Left ventricle hypertrophy**: heart muscle is thickened, preventing it from pumping efficiently

2. List two applications of an EMG:
   - Used to diagnose muscular and neuromuscular problems and disorders such as muscle inflammation, pinched nerves, muscular dystrophy, and ALS
   - Evaluate health of athlete’s muscles
   - Research muscle activity and abnormalities
   - Tailor workouts for athletes

3. What is the purpose of an electrode in an EMG or ECG test?
   - The electrode(s) measure the electrical activity (or voltage) of the muscle of interest

4. Briefly describe what occurs in the body of an individual with ALS:
   - Individuals with ALS experience progressive muscle deterioration, which results in body deformities and inability to move affected limbs