What is an EMG? Post-Quiz Answer Key

Directions
Answer the following questions the best you can. This is a graded assignment.

1. What is an EMG? In 2-3 sentences, please explain what EMG stands for, how you would define it, and provide one example for why they are important.

   EMG stands for electromyograph, and it is a measurement of the electrical activity of the muscles. EMG can help diagnose or monitor neuromuscular disorders, assess the health of a muscle, and be used in research to study muscular function. (Any one of these answers, along with any valid answer, should receive full credit.)

2. Fill in the blanks of the following sentence:

   **Action potentials** are electrical signals generated by our neurons to convey information.

3. Please draw a picture of the waves an oscilloscope might display for a normal, healthy muscle at three different levels of contraction:

<table>
<thead>
<tr>
<th>Rest</th>
<th>Slight Contraction</th>
<th>Forceful Contraction</th>
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</thead>
<tbody>
<tr>
<td>Flat line—little to no activity</td>
<td>Single, or few, spike(s)</td>
<td>Several spikes</td>
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4. What are the two primary types of motor neurons? Use them to fill in the following statement:

   **Upper** motor neurons originate in the brain and send information to… **lower** motor neurons, which are attached to our muscles.