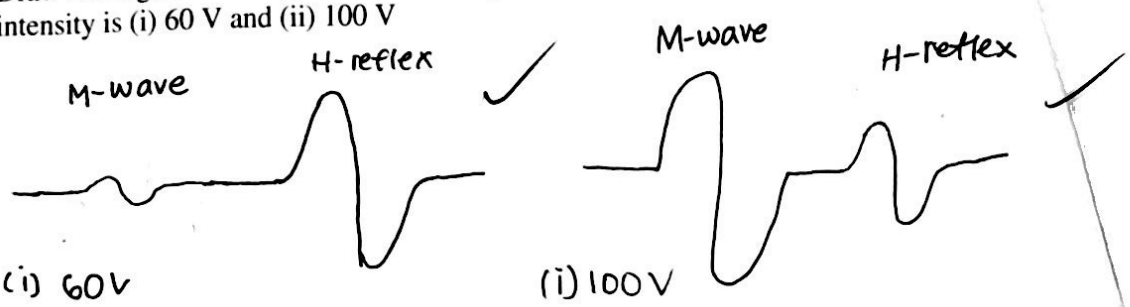
5. Draw two figures like Figure b, illustrating the magnitude of the H and M-waves when the stimulus intensity is (i) 60 V and (ii) 100 V

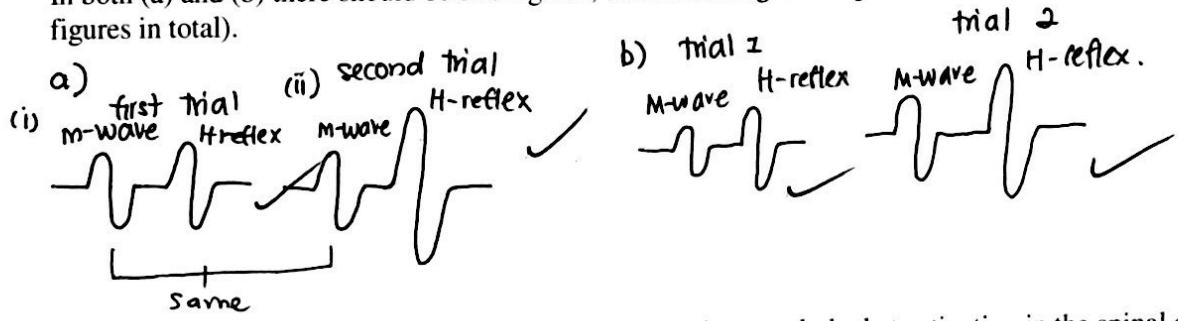
2



6. Draw the results of two trials which would illustrate that:
   a. the system was a high gain system in the second trial versus the first trial
   b. there were different inputs for the two trials

   In both (a) and (b) there should be two figures, demonstrating the amplitude of M and H waves (i.e., 4 figures in total).

4



7. From (6), which sets of trials (i.e., (a) or (b)) can be used to conclude that activation in the spinal cord can be influenced by higher structures in the nervous system?

(

Trial a can be used to conclude that activation of the spinal cord can influence nervous system's higher structure.

APA 3150, Fall 2019: In Class Assignment #1

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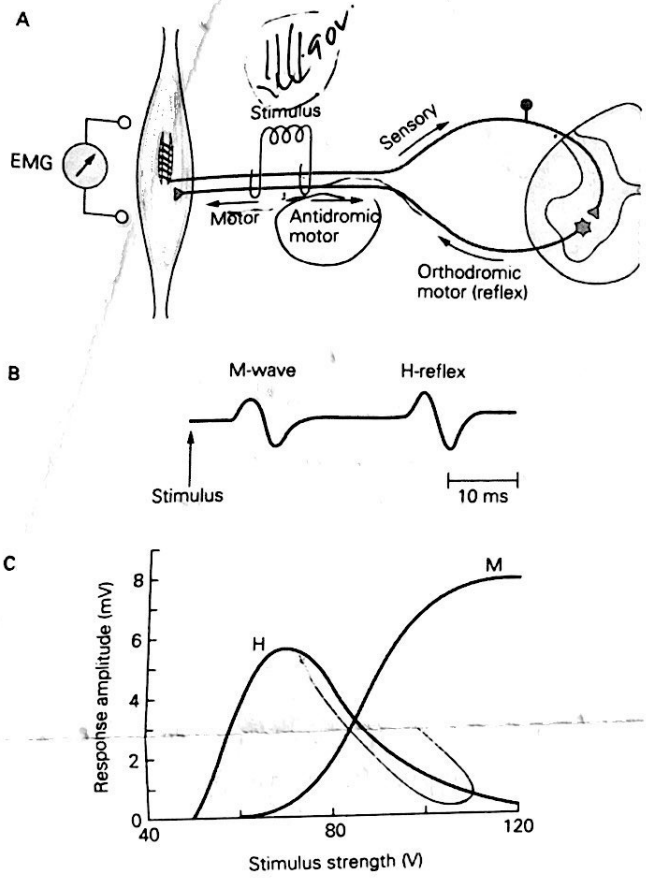
12

The Hoffman Reflex: Kandel, Schwartz and Jessell; Figure 36-13



Using the figures above, please answer the following questions:

1. How is the H-reflex evoked? electrical activation of sensory neuron

   When the spinal chord fires a response to a stimulus as a result of a reflex movement.

2. How is muscle activation detected? How does this technique differ from EEG?

   EMG, it measures the electrical ~~impulse~~ activity of the muscle instead of the neurons around the brain area.

3. What does the M-wave in Figure b represent?

   It is the strength of the input stimulus of ~~me~~ both the motor & the ~~sensory~~ neurons.

4. In Figure c, we see H and M-wave response amplitudes (i.e., muscle activity) as a function of stimulus strength. What conclusions can you draw regarding changes in the H and M waves with increases in stimulus intensity?

   As the stimulus & input increases in strength, the H-waves (M-waves) respond amplitude increases however from 60v to 120v the H-waves response amplitude decreases. The M-waves respond amplitude increase proportionally to the Stimulus strength.