

Unit 7 Quiz

1. Match the type of sensory receptor with its function.

Receptor: Free nerve endings (FNE); Meissner's Corpuscles (MEI); Merkel's Disks (MkD); Golgi Tendon Organs (GTO); Pacinian Corpuscle (PAC).

A) Muscle tension: _____

B) Flutter: _____

C) Fine touch: _____

D) Pain: _____

E) Vibration: _____

2. Joint receptors can also be considered:

A) Golgi tendon organs.

B) Muscle spindles.

C) Merkel's Disks.

D) Free nerve endings.

3. Muscle spindles are proprioceptors specialized to monitor _____ by changing the _____ rate of afferent action potentials. Fill in the blanks.

A) muscle length (stretch), discharge

B) pain, uploading

C) muscle tension, discharge

D) muscle pain, discharge

4. Mechanosensory discrimination refers to which of the following?

A) Mechanically, we sense different signals differently depending on the signal.

B) Mechanoreceptors that respond to stimuli are three to four times more numerous in the fingertips than in other areas of the hand.

C) Sensory identification depends on the depth (mechanics) of the stimulus.

D) None of the above.

5. According to the dermatome map, a loss of sensation in the upper arm indicates an injury in sensory information supplied to which segment of the spinal cord?

A) T2

B) L2

C) C5

D) L2



6. The trigeminal somatic sensory system has two major components. Which two of the following components are responsible for processing stimuli via the trigeminal somatic sensory system?
- I. Principal nucleus
 - II. Solitary nucleus
 - III. Maxillary nucleus
 - IV. Spinal nucleus
- A) I and IV
B) I and III
C) II and IV
D) II and III
7. According to the somatotopic order of the somatic sensory cortex, stimulation of feet is located on the _____ side, and stimulation of the nose is located on the _____ side of the cortex. Fill in the blanks.
- A) Lateral, medial
B) Dorsal, ventral
C) Medial, lateral
D) Top, bottom
8. Nociceptors detect what type of stimuli?
- A) Smell
B) Pain
C) Touch
D) Taste
9. The medial lemniscal pathway carries what type of information from the body to the brain?
- A) Proprioceptive information
B) Sharp pain
C) Visceral pain
D) Feathery touch
10. Hyperalgesia is caused by which of the following?
- A) Release of prostaglandins at the site of injury.
B) Release of GABA in the cerebral cortex.
C) Release of bradykinin in the cerebral cortex.
D) Release of glutamate at the site of injury.

