

Name: _____

Physiology: Sensory Receptors

Directions: Write in and circle best answer on this sheet.

1. A rapidly adapting receptor is called a _____ receptor. In lab we tested two examples of these receptors, write the general name for these below. [Hint: Temp and touch]

1) _____ 2) _____

2. A slow adapting receptor is called a _____ receptor. In lab we did not test any of these, but we looked up examples in the body. Write the general name for two of these below. [Hint: Blood pressure and body position are constantly assessed]

1) _____ 2) _____

3. In our two-point discrimination test in lab using calipers, the _____ was the most sensitive body region for perceiving two distinct points because its receptor fields are _____.

4. When reading a book at a close distance, the pupil needs to be _____ to assist in _____ focus. The cranial nerve that controls pupil constriction is _____.

5. Pain receptors are called _____, they are specialized _____ - _____ - _____ that detect _____ in the area of the damaged tissue.

6. In lab, students will test their blood glucose levels by pricking the sides of their fingers rather than the pads. This side location is suggested to avoid stimulating _____.

7. The *specific* type of receptors for cutaneous pressure are _____.

Reflexes Use information from Ch 11, page 292 to 293 of our OER Text.

8. Define a Reflex: _____.

9. In the pupillary reflex:

The _____ muscle closes down (**constricts**) the pupil. This is controlled by the **Sym** or **Para**?

The _____ muscle pulls the pupil open (**dilates**) the pupil. Controlled by the **Sym** or **Para**?

10. Name the 2 types of **spinal reflexes** discussed in lab and list a specific example of each.

1) _____

2) _____

Multiple Choice Questions

1. Which of the following components or examples belong to a polysynaptic spinal reflex?
 1. thalamus 2. inferior colliculi 3. patellar reflex 4. interneurons 5. withdrawal reflex
 a) 1 only b) 4 and 2 c) 3 only d) 2, 5 and 4 e) 5 and 4
2. In lab, when *watching* the reaction time ruler to catch it, what was the **receptor** in this loop?
 a) skeletal muscle b) sensory neurons c) photoreceptors d) proprioceptor e) the brain
3. In terms of **adaptation**, baroreceptors that detect blood pressure _____.
 a) detect pressure b) are tonic c) are phasic d) are fast to adapt e) mechanoreceptors
4. If someone unexpectedly throws an object toward you, a protective reflex measure is to raise your hands to shield yourself. What is the specific region of the brain coordinating this?
 a) midbrain b) inferior colliculus c) hypothalamus d) superior colliculus e) thalamus
5. **Chemical** senses include _____.
 a) olfaction b) receptors for pH c) gustation d) oxygen levels in blood e) all of these
6. When would you expect that your pupils would be **smallest**?
 a) Watching a movie in a dimly lit room. b) Reading a book in a moderately lit room.
 c) Sitting on the beach on a very sunny day. d) Navigating through a dark forest at night.
 e) Suddenly seeing someone you like.
7. The sensory receptors in skin specialized to detect information about changes in **temperature** are:
 a) Free nerve endings b) Hair follicle receptors c) Meissner's corpuscles
 d) Pacinian corpuscles e) Nociceptors
8. Receptors that help maintain, body position, equilibrium, and posture are:
 a) nociceptors b) mechanoreceptors c) free nerve endings d) proprioceptors
9. All sensory signals **except** _____ travel to the _____ in the brain before the cerebral cortex.
 a) vision; thalamus
 b) olfaction; thalamus
 c) vision; cranial nerves
 d) olfaction; cranial nerves
10. What does the term **threshold stimulus** mean for sensory receptors?
 a) The minimum strength of the stimulus required to trigger a response.
 b) The duration of stimulus that triggers all sensory receptors.
 c) The type of sensory receptor activated by a sensory experience.
 d) The specific type of energy needed to activate a particular sensory receptor.