

Answers to lab 8

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Observation of the Human Brain

1. The size of the human brain (relative to the body size) is larger than the sheep's brain.
2. The size of the cerebrum in relation to the rest of the brain is larger in humans than in sheep.

Figure 18.2 The Human Brain (longitudinal section)

- a. Brain stem
- b. Mid-brain
- c. Pons
- d. Medulla
- e. Cerebrum
- f. Thalamus
- g. Diencephalon
- h. Hypo-thalamus

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18.2 Spinal nerves and spinal cord

1. It conveys nerve impulses from the sensory receptor to the spinal cord.
2. It transmits impulses from the sensory neuron to the motor neuron.
3. It conveys impulses from the spinal cord to an effector (muscle or gland).

Figure 18.3

- a. Interneuron
- b. Sensory nerve
- c. Motor nerve

Pg. 236 Knee-jerk (Patellar) reflex

- a. 3. The leg extends.

Pg. 237 18.3 The human eye

2. light → cornea → aqueous humor → pupil → lens → vitreous humor → retina → optic nerve → brain
3. The ciliary body
4. lens, cornea, and humors
5. receptors are rod and cone cells which are located in the retina.
6. The optic nerve.

Pg. 238 Figure 18.6 Anatomy of the human eye.

- a. retina
- b. choroid
- c. sclera
- d. optic nerve
- e. fovea centralis
- f. vitreous
- g. ciliary body
- h. lens
- i. iris
- j. pupil

- k. cornea
- l. aqueous

Pg. 241 Figure 18.9 Anatomy of the human ear

- a. malleus
- b. incus
- c. semicircular canals
- d. stapes
- e. cochlea
- f. tympanic membrane
- g. auditory canal
- h. pinna

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- 1. cerebrum
- 2. cerebellum
- 3. medulla
- 4. vertebrae
- 5. gray matter
- 6. interneuron
- 7. sensory neuron
- 8. retina
- 9. where the optic nerve exits the retina
- 10. sclera
- 11. inner ear (cochlea)
- 12. above the head
- 13. middle ear