1. The term *saccade* refers to
   a. The area of the retina from which the optic nerve exits
   b. **A small eye movement**
   c. The center of color vision
   d. A projection of information from the retina to the lateral geniculate nucleus
   e. The small indentation in the retina

2. The color attribute of _______ corresponds to that of light *wavelength*.
   a. Saturation
   b. Brightness
   c. **Hue**
   d. Intensity
   e. Contrast

3. A tiger has _____ binocular disparity than a gazelle—this increases the ability to perceive _____.
   a. Less; depth
   b. **More; depth**
   c. Less; motion
   d. More; motion
   e. Less; dinner

4. The amount of light entering the eye is regulated by the size of the
   a. Sclera
   b. **Pupil**
   c. Optic orbits
   d. Conjunctiva
   e. Lens

5. The process of accommodation involves
   a. The hardening of the lens as one ages
   b. The contraction of the ciliary muscles to constrict the pupil
   c. The contraction of the ciliary muscles to dilate the pupil
   d. The lens becoming smaller as one ages
   e. **Changes in the shape of the lens to focus on near or distant objects**

6. Convergence is _____ and binocular disparity is _____ when an object is ______.
   a. Smaller, smaller, farther away
   b. Smaller, smaller, very close
   c. Greater, smaller, farther away
   d. Smaller, greater, very close
   e. Greater, greater, farther away
7. The human retina contains about ____ rods and about _____ cones.
   a. 3 million; 60 million
   b. 9 million; 120 million
   c. 32 million; 320 million
   d. 120 million; 6 million
   e. 160 million; 2 million

8. In humans, all of the photoreceptors are in the
   a. Cornea
   b. Optic disk
   c. Fovea
   d. First layer of the retina to be reached by light entering the eye
   e. Last layer of the retina to be reached by light entering the eye

9. Imagine a disease that attacks only the photoreceptors located in the periphery of the retina
   (that is, not at the fovea); such a disease would be expected to
   a. Impair night vision
   b. Disrupt color vision
   c. Impair vision for fine details
   d. Diminish the ability to perceive depth
   e. Both b and c

10. We perceive “yellow” when
    a. Blue cones are inhibited
    b. Red cones are inhibited
    c. Yellow cones are stimulated
    d. Red and green cones are both stimulated
    e. Red and blue cones are both stimulated

11. Information from the right side of the world is first processed by ...
    a. The right hemiretina of both eyes
    b. The optic chiasm
    c. The temporal hemiretina of the left eye and the nasal hemiretina of the right eye
    d. The nasal hemiretina of the left eye and the temporal hemiretina of the right eye
    e. The right hemisphere of the brain

12. Which of the following can be found at the blind spot?
    a. Fovea
    b. Cones
    c. The axons of bipolar cells
    d. The axons of retinal ganglion cells
    e. The cell bodies of retinal ganglion cells

13. The reaction that translates light into an electrical signal in rods is
    a. Transduction, caused by the bleaching of rhodopsin by light
    b. Transduction, caused by rhodopsin turning red in light
    c. Perception, caused by the inhibition of the graded response in rods
    d. Perception, caused by the excitation of the graded response in cones
    e. Translation, caused by the sensitivity curve
14. The fact that we experience an afterimage of the color green after viewing a red object can be taken as support for the
   a. Notion that the retina contains three kinds of cones
   b. Importance of color mixing in the visual system
   c. **Opponent-process theory of color vision**
   d. Idea that the visual system performs an algebraic summation of lights to generate a color perception
   e. Trichromatic theory of color vision

15. When a light is shone in the *center* of the receptive field of an on-center cell,
   a. Nothing happens while the light is on, but firing is inhibited when the light is turned off
   b. **The firing of the cell is increased until the light is turned off**
   c. The firing of the cell remains constant, but is inhibited when the light is turned off
   d. There is an immediate period of inhibition and a burst of firing when the light is turned off
   e. The cell stops firing until the light turns off and then turns on again

16. (5 points)
   Draw an eye (or more than one eye, if that’s easier for your labeling), and label the following components: sclera, cornea, lens, iris, pupil, fovea, retina, optic disc, blind spot, optic nerve. Don’t worry if you’re not a good drawer, I’m not either! 😊