CHAPTER 1 FOUNDATIONS

MULTIPLE-CHOICE QUESTIONS

1. Perception primarily differs from sensation in that only perception involves
   a. forming mental representations of objects and events.
   b. converting features of the environment into electrochemical signals.
   c. the use of specialized sense organs.
   d. only bottom-up processing.
   Ans: A Level: M Page: 2 Topic: Foundations

2. Arvi, standing outside, turns his head as he hears the distinctive sound of a Harley-Davidson motorcycle (vroom!-vroom!-vroom!) coming down the street. In this example, the distal stimulus is
   a. the sound waves reaching his ears.
   b. the light waves reaching his eyes.
   c. the vibration of the street produced by the motorcycle.
   d. the motorcycle itself.
   Ans: D Level: D Page: 3 Topic: The Perceptual Process

3. In baseball, most hitters can detect the initial rotation of a pitched ball. More experienced hitters are able to use this information to accurately anticipate the ball's position when it reaches the plate, but most rookies cannot. Apparently, experienced hitters can better apply
   a. bottom-up information.
   b. top-down information.
   c. distal stimuli.
   d. transduction.
   Ans: B Level: M Page: 3 Topic: The Perceptual Process

4. Cells in the nervous system that convert proximal stimuli into neural signals are called
   a. dendrites.
   b. synapses.
   c. sensory receptors.
   d. distal receptors.
   Ans: C Level: M Page: 3 Topic: The Perceptual Process

5. An example of a distal stimulus would be _____, while an example of a proximal stimulus would be _____.
   a. a slamming door; sound waves
   b. a pine tree; a slamming door
   c. sound waves; a slamming door
   d. a slamming door; a pine tree
   Ans: A Level: M Page: 3 Topic: The Perceptual Process

6. A person's knowledge, expectations, and goals are referred to as
   a. bottom-up information.
   b. top-down information.
   c. either top-down or bottom-up information.
   d. proximal stimuli.
   Ans: B Level: M Page: 3 Topic: The Perceptual Process

7. Mechanoreceptors convert _____ into neural signals.
   a. top-down information
   b. light
   c. distal stimuli
   d. proximal stimuli
   Ans: D Level: M Page: 3 Topic: The Perceptual Process

8. A cognitive neuroscientist measures _____, while a psychophysicist assesses_____.
   a. neural activity; cognition
   b. neural circuit activity; individual neural activity
   c. neural activity; simple behavioral responses
   d. simple behavioral responses; neural circuit activity
   Ans: C Level: M Page: 5 Topic: Three Main Types of Questions

9. Our sense of the position of our limbs as well as our feeling of their movement is known as
   a. proprioception.
   b. nociception.
   c. olfaction.
   d. gustation.
   Ans: A Level: E Page: 6 Topic: How Many Senses Are There?

10. The wavelengths of the visible spectrum
    a. do not include infrared or ultraviolet light.
    b. are the least abundant wavelengths of light emitted by the sun.
    c. are poorly transmitted in water.
    d. All of the answers are correct.
    Ans: A Level: M Page: 7 Topic: Evolution and perception

11. According to the "law of specific nerve energies," the reason the brain interprets certain incoming signals as being visual information is that these signals
    a. are the result of photons entering the eye.
    b. are the output of specialized neurons called photoreceptors.
    c. enter the brain via the optic nerve (a bundle of fibers that connects the eye to the brain).
    d. themselves contain light energy in the form of electromagnetic radiation.
    Ans: C Level: D Page: 7
    Topic: Exploring Perception by Studying Neurons and the Brain

12. Muller's _____ states that "the kinds of perceptions we have depend on which neurons are activated, not on what's activating those neurons."
    a. law of specific nerve energies
    b. law of effect
    c. neural doctrine
    d. law of perceptual processing

    Ans: A Level: E Page: 7
    Topic: Exploring Perception by Studying Neurons and the Brain

13. The idea that perception depends on the combined activity of many specialized neurons, each of which responds to specific aspects of a stimulus defines the
    a. neuron doctrine.
    b. law of specific nerve energies.
    c. principle of natural selection.
    d. law of structural specificity.

    Ans: A Level: E Page: 8
    Topic: Exploring Perception by Studying Neurons and the Brain

14. What is the order in which various structures become involved from the time a neuron first receives a signal to the time it transmits a signal in response?
    a. axon terminals, axon, cell body, dendrite
    b. cell body, dendrite, axon terminal, axon
    c. axon, axon terminal, dendrite, cell body
    d. dendrite, cell body, axon, axon terminals

    Ans: D Level: M Page: 8 Topic: Neurons and Neural Signals

15. An axon's membrane potential results from
    a. the concentration of positively and negatively charged ions on either side of the cell membrane.
    b. the concentration of only sodium and potassium ions within the cell membrane.
    c. the concentration of neurotransmitters on either side of the cell membrane.
    d. the concentration of only sodium and chloride ions on either side of the cell membrane.

    Ans: A Level: M Page: 9 Topic: Neurons and Neural Signals

16. A neuron at rest has a membrane potential of
    a. –30 mV.
    b. +30 mV.
    c. +70 mV.
    d. –70 mV.

    Ans: D Level: M Page: 9 Topic: Neurons and Neural Signals

17. When an action potential begins, depolarization of the axon membrane is the result of
    a. closing of voltage-gated channels.
    b. the release of Cl^- ions.
    c. the influx of K^+ ions.
    d. the influx of Na^+ ions.

    Ans: D Level: M Page: 10 Topic: Neurons and Neural Signals

18. The voltage-gated sodium ion channels
    a. lead to hyperpolarization when opened.
    b. are found in the dendrites.
    c. allow Na^+ ions to exit the neuron.
    d. allow Na^+ ions to enter the neuron.
    Ans: D Level: D Page: 10 Topic: Neurons and Neural Signals

19. A neuron's baseline firing rate
    a. depends on the frequency of previous action potentials.
    b. is a low spontaneous firing rate in the absence of stimulation.
    c. requires a very weak stimulus.
    d. depends on the number of dendrites the cell possesses.
    Ans: B Level: D Page: 11 Topic: Neurons and Neural Signals

20. When an excitatory postsynaptic potential occurs
    a. the probability of an action potential is increased.
    b. the membrane potential has depolarized.
    c. sodium ions have entered the cell.
    d. All of the answers are correct.
    Ans: D Level: M Page: 13 Topic: Neurons and Neural Signals

21. With a dorsal view of the cerebral hemispheres, you would be able to see
    a. only the parietal lobes.
    b. only the frontal and occipital lobes.
    c. the frontal, parietal, temporal, and occipital lobes.
    d. only the brain stem.
    Ans: C Level: M Page: 15 Topic: The Human Brain

22. The central sulcus separates the parietal lobe from the _____ lobe.
    a. frontal
    b. temporal
    c. occipital
    d. cerebellar
    Ans: A Level: M Page: 15 Topic: The Human Brain

23. Most neural signals originating in the sensory organs pass through which subcortical structure?
    a. thalamus
    b. hippocampus
    c. amygdala
    d. corpus callosum
    Ans: A Level: E Page: 16 Topic: The Human Brain

24. A neuropsychologist has been studying two patients who suffered strokes. One can still understand spoken English but can only speak gibberish. The other can still speak English fluently but can no longer understand spoken English. This is an example of
    a. a single dissociation.
    b. a double dissociation.
    c. experience-dependent plasticity.
    d. parietal-lobe damage.
    Ans: B Level: M Page: 18 Topic: Cognitive Neuropsychology

25. In the field of cognitive neuropsychology, findings based on studies of just a few individuals can be generalized and applied to most human brains based on the
    a. doctrine of specific nerve energy.
    b. notion of modularity.
    c. assumption of cognitive uniformity.
    d. concept of functional specialization.
    Ans: C Level: M Page: 18 Topic: Cognitive Neuropsychology

26. Functional magnetic resonance imaging (fMRI) indirectly measures neural activity by measuring
    a. changes in blood flow.
    b. changes in metabolic activity.
    c. the magnetic properties of neurons.
    d. changes in blood oxygen.
    Ans: D Level: M Pages: 19–20 Topic: Functional Neuroimaging

27. The minimum intensity of a physical stimulus that can just be detected by an observer is called
    a. the absolute threshold.
    b. the difference threshold.
    c. the just noticeable difference.
    d. Fechner's law.
    Ans: A Level: E Page: 21 Topic: Psychophysics

28. Dr. Lazarte is testing an elderly patient's hearing by presenting a set of tones at different intensities. Each tone is presented multiple times, interleaved with the other tones in a random order. After each presentation, the patient indicates whether she heard the tone. The psychophysical technique being used is the
    a. method of adjustment.
    b. staircase method.
    c. method of constant stimuli.
    d. method of random stimuli.
    Ans: C Level: M Page: 22 Topic: Psychophysics

29. The staircase method is a variation on the method of
    a. limits.
    b. adjustment.
    c. constant stimuli.
    d. minimal perception.
    Ans: C Level: E Page: 23 Topic: Psychophysics

30. _____ states that "the size of the JND tends to increase as the intensity of the standard stimulus (or background) increases."
    a. Weber's law
    b. Weber's fraction
    c. Fechner's law
    d. Stevens' law
    Ans: A Level: E Page: 26 Topic: Psychophysics

31. The JND for a 100 g weight is 2 g. According to Weber's law the JND for a 1000 g weight would be
    a. 200 g.
    b. 2 g.
    c. 20 g.
    d. undetermined.
    Ans: C Level: M Page: 26 Topic: Psychophysics

32. Through some tasty culinary investigation, Chef Willie has found the difference threshold for the sweetness of sugar in a cake. For a cake with 100 mg of sugar, the difference threshold is 5 mg. Based on this information, how much sugar would need to be added to a cake already containing 250 mg of sugar in order to make it taste just noticeably sweeter. (Assume Weber's law applies.)
    a. 5 mg
    b. 10 mg
    c. 12.5 mg
    d. 20 mg
    Ans: C Level: D Page: 26 Topic: Psychophysics

33. According to your text, Fechner's law adds to Weber's law the idea that 1 JND
    a. equals 1 unit of perceived intensity.
    b. equals log 1 unit of perceived intensity.
    c. equals 1 unit of perceived intensity raised to the second power.
    d. equals k unit of perceived intensity.
    Ans: A Level: D Page: 27 Topic: Psychophysics

34. S. S. Stevens questioned the usefulness of Fechner's law because some perceptual dimensions, such as _____, provided findings that were inconsistent with Fechner's law.
    a. taste
    b. brightness
    c. loudness
    d. electric shock
    Ans: D Level: E Pages: 27–28 Topic: Psychophysics

35. According to signal detection theory, saying "yes" after a signal is presented is considered a
    a. hit.
    b. false alarm.
    c. miss.
    d. correct rejection.
    Ans: A Level: E Page: 32 Topic: Signal Detection Theory

36. In a signal detection experiment, the total number of times a stimulus is presented is equal to the number of
    a. misses + correct rejections.
    b. hits + false alarms.
    c. false alarms + correct rejections.
    d. hits + misses.
    Ans: D Level: D Page: 32 Topic: Signal Detection Theory

37. In a signal detection experiment, the value of d' is a function of
    a. the observer's sensitivity and the magnitude of the stimulus.
    b. the observer's decision criterion and the magnitude of the stimulus.
    c. the observer's sensitivity and decision criterion.
    d. the observer's sensitivity and decision criterion, and the magnitude of the stimulus.
    Ans: A Level: M Page: 36 Topic: Signal Detection Theory

38. Bob and Jasmin take part in a signal detection study in which they are presented with identical stimuli. Bob's measure of d' is 2.3 whereas Jasmin's d' is 0. Jasmin could be considered a _____ observer.
    a. very sensitive.
    b. moderately sensitive.
    c. weakly sensitive.
    d. completely insensitive.
    Ans: D Level: M Page: 36 Topic: Signal Detection Theory

39. When interpreting medical diagnosis in terms of signal detection theory, which diagnostic result is equivalent to a miss?
    a. true positive
    b. false positive
    c. false negative
    d. true negative
    Ans: C Level: M Page: 39 Topic: Signal Detection Theory

ESSAY QUESTIONS

1. Describe five distal stimuli and their associated proximal stimuli that you are experiencing in your present environment; no two stimuli should be from the same perceptual dimensions. For each of these distal stimuli, describe the top-down processes used in perceiving it.

2. Focusing on the role of voltage-gated channels (Na^+ and K^+), describe the events that occur along the axon in the course of an action potential.

3. Describe the activities involving neurotransmitters that occur in response to an action potential, focusing on what happens in the axon terminal of the presynaptic neuron, in the synapse, and in the postsynaptic membrane.

4. You and a friend jump into a pool, forgetting you are both still carrying your smart phones. Your smart phone now has no sound but has a picture. Your friend's identical phone has sound but no picture. Is this a single or double dissociation? Discuss whether this pattern implies the existence of sound and picture modules within the phones.

5. Describe a neuroimaging study that could be used to investigate the presence of a brain area specialized for the processing of faces. (For this question, you need to think of the appropriate visual stimuli to present to participants.)

6. Using examples from three different senses, describe three activities in which you need to detect small differences in the intensity of sensory stimuli. What role does your difference threshold play in each activity?

7. Compare the advantages and disadvantages of the method of adjustment, the method of constant stimuli, and the staircase method in determining absolute threshold.

8. The perception of sound follows Fechner's law. As the volume dial goes from 1 to 2 on an audio device, how then should the physical intensity of the sound change to be perceived as twice as loud? (Should it be doubled? More than doubled? Less than doubled?) Explain your answer.

9. In a signal detection experiment, participants are asked to respond when they detect a very low intensity tone. Fred responds to the tone on 80% of its presentations and Miguel responds to it 50% of the time. How could you determine whether Fred is more sensitive to the tone than is Miguel?

ESSAY QUESTION ANSWERS

1. Answers should first relate sensory experience (visual, auditory, olfactory, etc.) to the physical objects (or, distal stimuli) in the environment, and then show how knowledge and expectations lead to perception of the stimuli.

2. Signals from other neurons initiate depolarization, the influx of Na^+ into the axon, near where the axon exits the cell body. Na^+ channels then close, followed by the opening of K^+ channels, resulting in repolarization as K^+ exits the axon. Repolarization continues until hyperpolarization is reached, undershooting the neuron's resting potential. The axon then returns to its resting potential. This sequence of events propagates repeatedly along the length of the neuron.

3. Synaptic vesicles in the presynaptic neuron release neurotransmitter molecules into the synapse. Drifting through the synapse, some of these molecules bind to receptor sites in the postsynaptic neuron, causing ion channels to open.

4. Individually, both friends show a single dissociation. Their combined pattern of disrepair is an example of a double dissociation, suggesting the existence of separate sound and picture modules. The best answer would explain the logic behind this conclusion (e.g., this pattern could not occur if there was a single shared module.)

5. Since a neuroimaging design is requested, answers should involve a comparison of brain activity under two or more different conditions. Examples may include a comparison of activity in response to pictures of faces versus scrambled faces, or human faces versus monkey faces. A region specialized for face-processing will show a greater response to (human) faces than other similar stimuli.

6. Appropriate examples might be cooking, in which you need to adjust seasonings based on taste, or detecting the proper functioning of a mechanical device (car, air conditioner) based on the sound it makes. The more sensitive the cook's palate, for example, the finer the correction he can make to a recipe.

7. Method of adjustment: fast but least precise. Method of constant stimuli: most time-consuming, but most precise. Staircase method: more precise than method of adjustment, less time-consuming than method of constant stimuli.

8. Examination of the graph of physical intensity of stimulus versus perceived intensity of stimulus (Figure 1.16) shows a decelerating curve: doubling perceived intensity requires that the physical intensity of the sound be more than doubled.

9. At first glance, Fred may seem more sensitive, but he may also have a higher percentage of false-positive responses, suggesting a liberal decision-making bias, rather than greater sensitivity. To make a comparison of their levels of sensitivity, one could plot each observer's rate of hits and false positives on an ROC plot; the more sensitive observer would be plotted closer to the upper left of the graph (indicating a higher d'.)

RESPONSES TO EXPAND YOUR UNDERSTANDING QUESTIONS

1.1 Examples of possible distal and proximal stimuli during the activity of eating dinner:

Sense	Example of Possible Distal Stimulus While Eating Dinner	Example of Possible Proximal Stimulus While Eating Dinner
Vision	Broccoli on diner's plate	Light reflected from broccoli
Audition	Water poured into a glass	Sound of water entering glass
Tactile perception	Fork held in diner's hand	Pressure of fork held in diner's hand
Proprioception	Fork brought to diner's lips	Feeling of arm position
Nociception	Lobster claw	Pressure of sharp claw into finger
Thermoreception	Wine in glass	Cold of glass on hand and fingers
Balance	Heavy plate carried to table	Gravitational force on plate
Body movement	Reaching for bread on table	Acceleration of arm to bread dish
Olfaction	Bacon on diner's plate	Bacon molecules in diner's nose
Gustation	Broccoli in diner's mouth	Broccoli molecules on diner's tongue

1.2 The bottom-up information available to Dave's wife was the sight of water under the bathroom door and flooding the hallway. Her experience provided her with the top-down information that the presence of water meant that there was a significant problem of some kind in the bathroom (hence her scream). Dave's driving experience (that is, his top-down information) led him to believe the car in front of him would maintain a constant speed. His wife's scream likely distracted him from perceiving the bottom-up information of the car in front unexpectedly stopping before him, leading to the crash.

1.3 Figure 1.5a versus Figure 1.18a: Both figures represent the rate of action potentials as spikes along a horizontal axis of time. Figure 1.5 shows that the spiking rate increases as the stimulus intensity increases, whereas Figure 1.18a shows that across different trial presentations, the same stimulus tone could evoke a wide range of spiking rates.

Figure 1.5b vs. Figure 1.11b: Both figures are S-shaped curves, with the stimulus intensity plotted along the X-axis. They differ in that the neuron firing rate is plotted on the Y-axis on Figure 1.5b, and % "yes" responses is on the Y-axis of Figure 1.11b.

1.4 Neuropsychological evidence that pain intensity and pain location are represented in different regions of the brain would be the discovery of patients showing a double dissociation of impairment. That is, one patient who is capable of reporting the intensity of a pain but not its location, and a second patient capable of localizing pain but unable to distinguish different pain intensities.

Neuroimaging evidence could result from a study in which participants endure two levels of pain (low and high) at two separate and distant body locations. A brain region that is processing pain location will vary its activity depending on the location of the pain, but it will be largely unaffected by changes to the intensity of the pain; a brain region that is processing pain intensity will vary its activity depending on pain intensity, but it will be largely unaffected by a change in the location of the pain.

1.5 Measuring the absolute threshold for brightness perception using Figure 1.14. The figure as printed demonstrates how to find a just noticeable difference (JND). Absolute threshold may be also thought of as the just noticeable difference, but it's the JND from a black background. As a result, for each method, the initial background would be black rather than gray.

Method of adjustment: On some trials center square is presented below threshold, and participants increase its intensity until it is visible. On other trials the center square is presented well above threshold, and participants decrease its intensity until it is no longer visible.

Method of constant stimuli: The center square is presented at a range of intensities some of which are above and some below the estimated threshold. Each intensity is presented multiple times. Participants report when they can see the square. The threshold is the intensity reported 50% of the time, as determined by the psychophysical function (graphing stimulus intensity versus proportion of times the intensity was detected).

Staircase method: Starting with the center square well below threshold, its intensity is gradually increased until it is reported as visible by the observer. The intensity is then gradually decreased until it can no longer be seen. Each time observers change their response defines a turnaround stimulus level. This procedure is repeated multiple times, and the average of the turnarounds is the threshold.

1.6 Fechner's law effectively describes perceptual dimensions (e.g., light and sound) that produce a decelerating curve when graphing stimulus intensity versus perceived intensity. Under Stevens power law, these types of stimuli have exponents of less than one. However, Fechner's law is not appropriate for perceptual dimensions such as length perception, which produces a linear function, or electric shock, which produces an accelerating function. The exponents of these stimulus types under Stevens' power law are 1 or greater. Thus, if the exponent were less than one for every perceptual dimension, we could disregard Stevens' power law.

1.7 The bars in Figure 1.18b constitute the frequency distribution for the number of spikes per trial, recorded from a neuron when a hypothetical stimulus of intensity of 3 is presented multiple times; the blue line is a smoothed normal function fitted over the bars. The (non-red) curves in Figure 1.19 represent the identical information as the curve in 1.18b for stimulus intensities 3, 5, 7, and 9.

1.8 The X-rayed luggage problem is similar to the "cracks in aircraft wings" problem posed at the end of the chapter. There will be far more items that resemble weapons than actual weapons; however, the cost of missing an actual weapon is potentially devastating. Using signal detection theory, the solution comes down to maximizing utility: maximizing the payoff of correct decisions (hits and correct rejections) and minimizing the cost of errors (misses and false alarms).

If inspectors open every suitcase containing any item barely resembling a weapon, they will catch virtually all weapons ("hits"), but it would be highly impractical: flights could be delayed for hours as many suitcases are opened unnecessarily ("false alarms"). On the other hand, if suitcases are opened only when there is a virtual certainty of a weapon being present (increasing the "correct rejections"), many weapons will go undetected ("misses"). Ultimately, a decision-making criterion must be settled upon that balances the inconvenience of opening suitcases with the small probability of finding a highly dangerous weapon.

WEB QUIZZES

1. The process of transduction occurs in
   a. the brain.
   b. all neurons.
   c. specialized neurons.
   d. the central nervous system.
   Ans: C Level: M Page: 4 Topic: Three Main Types of Questions

2. The receptors that transduce gravitational force are found in the
   a. mouth.
   b. skin.
   c. eyes.
   d. inner ear.
   Ans: D Level: M Page: 6 Topic: How Many Senses Are There?

3. The typical neuron has
   a. one dendrite.
   b. one axon.
   c. multiple axons.
   d. multiple somas.
   Ans: B Level: M Page: 8 Topic: Neurons and Neural Signals

4. In a single-cell recording,
   a. one electrode is placed inside the cell membrane and one electrode is placed outside the cell membrane.
   b. one electrode is placed inside the soma and one electrode is placed inside the axon.
   c. two electrodes are placed inside the cell membrane at different locations.
   d. one electrode is placed on the surface of the scalp and one electrode is placed on the earlobe.
   Ans: A Level: M Page: 9 Topic: Neurons and Neural Signals

5. During the action potential, the membrane potential reaches a peak of
   a. –30 mV.
   b. +30 mV.
   c. +70 mV.
   d. –70 mV.
   Ans: B Level: M Page: 10 Topic: Neurons and Neural Signals

6. The voltage-gated potassium ions channels
   a. lead to depolarization when opened.
   b. are found in the dendrites.
   c. allow K^+ ions to exit the neuron.
   d. allow K^+ ions to enter the neuron.
   Ans: C Level: D Page: 11 Topic: Neurons and Neural Signals

7. A ligand-gated ion channel opens in response to a
   a. sodium ion.
   b. voltage change.
   c. synaptic vesicle.
   d. neurotransmitter.
   Ans: D Level: D Pages: 12–13 Topic: Neurons and Neural Signals

8. Positron emission tomography (PET) indirectly measures neural activity by measuring
   a. changes in blood flow.
   b. changes in metabolic activity.
   c. the magnetic properties of neurons.
   d. changes in blood oxygen.
   Ans: A Level: M Page: 19 Topic: Functional Neuroimaging

9. The method of _____ is considered a more reliable method for estimating absolute threshold.
   a. limits
   b. adjustment
   c. constant stimuli
   d. minimal perception
   Ans: C Level: E Page: 22 Topic: Psychophysics

10. A psychophysical researcher who was in a hurry and not overly concerned with accuracy would probably use
    a. the method of adjustment.
    b. the method of constant stimuli.
    c. the method of limits.
    d. the Lamaze method.
    Ans: A Level: E Pages: 21–22 Topic: Psychophysics

11. _____ is a curve that relates a measure of perceptual experience to the intensity of a physical stimulus.
    a. The staircase method
    b. A neuropsychological function
    c. A psychometric function
    d. The receiver operating characteristic (ROC) curve
    Ans: C Level: M Page: 23 Topic: Psychophysics

12. _____ is a way to separate perceptual sensitivity from decision-making style.
    a. Weber's law
    b. Stevens' law
    c. Fechner's law
    d. Signal detection theory
    Ans: D Level: E Page: 32 Topic: Signal Detection Theory

13. In a signal detection experiment, an ROC curve is a graph of
    a. hits versus misses.
    b. hits versus correct rejections.
    c. hits versus false alarms.
    d. correct rejections versus false alarms.
    Ans: C Level: M Page: 33 Topic: Signal Detection Theory

14. The probability of hits plus the probability of misses in a signal detection experiment would
    a. equal 1.0.
    b. equal 0.5.
    c. equal 1.5.
    d. be undetermined.
    Ans: A Level: M Page: 33 Topic: Signal Detection Theory

15. For any stimulus intensity clearly above threshold, an observer for whom *d* is zero would be considered a _____ observer.
    a. very sensitive
    b. moderately sensitive
    c. weakly sensitive
    d. completely insensitive
    Ans: D Level: M Page: 36 Topic: Signal Detection Theory