

Exam 1 Answer Key

1. A biopsychologist tries to relate behavior to

- A. interactions between conscious and unconscious thought processes.
- B. experiences early in life.
- C. electrical and chemical activities in the body.
- D. the influences of other people.

ANSWER: C % Correct: 95.74%

Biopsychologists are interested in the interaction between the biological structures of our nervous system and our ability to execute all of the functions of the mind. To study this, most biopsychologists focus on the cellular activity within the brain and other parts of our nervous system. They examine these cells by measuring either the electrical changes that the activity of these cells generate when being activated or the chemicals that these cells are using to communicate with each other.

2. People who expect someone to succeed treat that person differently and thereby cause the success they expected. Which type of psychologist studies processes like this?

- A. physiological psychologist
- B. comparative psychologist
- C. social psychologist
- D. quantitative psychologist

ANSWER: C % Correct: 95.74%

This question relates to the way that our behavior is impacted by the social world around us. The researchers listed above that focus their attention on topics related to this are called social psychologists. Though physiological psychologists and quantitative psychologists can sometimes explore topics related to social interaction, this is very uncommon. Therefore, none of the other options listed are a good fit for this question.

3. When Wilhelm Wundt started his psychological research, which of these was a key issue?

- A. What can psychologists do to prevent war?
- B. What are the elements of experience?
- C. Can we identify the genes responsible for mental retardation?
- D. What is the meaning of dreams?

ANSWER: B % Correct: 88.30%

Wundt, the man many credit with creating the first psychological lab, spent most of his time and lab resources attempting to quantify some of the basic components of the mind. Like many of his era, his attention was focused on the basic processes surrounding sensation and perception—one of the few

areas that people during his time agreed that psychologists could study in a quantifiable and controlled way.

4. Early psychologists, eager to develop a scientific psychology, concentrated on

- A. treatment of mental illness.
- B. sensation.
- C. the influence of groups on the individual.
- D. carefully defining terms like "mind."

ANSWER: B % Correct: 56.38%

This question relates directly to the work of Wilhelm Wundt—the person mentioned in the previous question. Many of our first “psychologists” dedicated their work to trying to find a way to quantify the basic components of the mind. Since we didn’t have the technology or mathematical approaches necessary to study the mind in as diverse of a way as we can study it today, most early researchers stuck to studying the basic processes of the mind like sensation and perception.

5. The second neuron involved in the process of the reflex arc is called the

- A. afferent neuron.
- B. interneuron.
- C. efferent neuron.
- D. temperent neuron.

ANSWER: B % Correct: 80.85%

This question was asking about the conceptual model of the reflex arc. Though it is a simplified view of our nervous system, the arc proposes that we can break down the cells of a nervous system into three neurons: The afferent neuron, which receives information from the environment—the interneuron, which receives information from the afferent neuron in order to communicate a message with the efferent neuron—and the efferent neuron, which is able to initiate our reaction to the stimulus that our afferent neuron detected.

6. When discussing the difference between our autonomic system (the automatically active portions of our nervous system), and our somatic system (the conscious-linked portions of our nervous system), we are discussing the difference between two components of the

- A. central nervous system.
- B. sympathetic nervous system.
- C. parasympathetic nervous system.
- D. peripheral nervous system.

ANSWER: D % Correct: 85.11%

The autonomic and somatic systems are parts of our peripheral nervous system. The central nervous system communicates with the peripheral nervous system, but it does not usually get linked with the autonomic or somatic systems. Our sympathetic and parasympathetic nervous systems are both sub-systems of our autonomic nervous system.

7. The two hemispheres of your cerebral cortex are connected by the

- A. interneurons.
- B. corpus callosum.
- C. temporal lobe.
- D. cerebellum.

ANSWER: B % Correct: 100.00%

The cerebellum connects your left and right hemisphere of the brain. This structure wasn't fully appreciated for many decades. We now know that it is not only critical in order to keep our hemispheres attached to each other, but it is also critical for the communication between the two hemispheres—something that is sometimes essential for us to successfully complete a variety of different mental tasks.

8. The nervous system is made up of two types of cells called _____ and _____.

- A. axons... dendrites
- B. dendrites...glia
- C. gametes ... autosomal cells
- D. neurons... glia

ANSWER: D % Correct: 98.94%

The cells that are communicating with each other in order for our mind and body to do all that it does are called neurons. Glia cells are the variety of different types of cells that help support the neurons during their communications by either providing structural support or speeding up the communication of the neurons through the process of myelination.

9. Of the various parts of a neuron, the part that receives information from other neurons is the _____ and the part that sends messages to other cells is the _____.

- A. dendrites... axon
- B. axon... cell body
- C. cell body... dendrites
- D. axon... dendrites

ANSWER: A % Correct: 91.49%

Dendrites are the receptor portion of our neurons. They are often receiving information from adjacent neurons, though some of our sensory neurons can have their dendrites activated by stimuli that are coming from the environment. The portion of the neuron that allows neurons to eventually release a neurotransmitter into our environment (usually into synapses) is the axon.

10. Tiffany suffered from damage to the brain that resulted in severe emotional issues. Based only on this information, we would probably surmise that her damage was probably linked to the _____ of her brain.

- A. parietal lobe
- B. hippocampus
- C. cerebellum
- D. amygdala

ANSWER: D % Correct: 84.04%

The parietal lobe is a multifaceted lobe of our brain that is primarily linked to sensation. The hippocampus is a structure within our brain that is often linked to memory. The cerebellum is a structure in the brain that has been linked to balance and some recent studies have indicated that it could also be linked to motor skills and memory. The amygdala is a structure of the brain that is most often linked to emotions.

11. What would be most impaired after damage to the occipital lobe of the cerebral cortex?

- A. hearing
- B. control of fine movements
- C. body perception
- D. vision

ANSWER: D % Correct: 98.94%

The occipital lobe, located in the back of our brains, is linked to our ability to process the visual information that is being detected by our eyes. It contains many layers that are all critical in their own way when we attempt to make sense of the visual information that the rods and cones in our eyes detect.

12. Which lobe of the cerebral cortex is the most utilized during executive functions and motor activity?

- A. frontal
- B. temporal
- C. occipital
- D. parietal

ANSWER: A % Correct: 94.68%

Though the frontal lobe is most often linked to the topic of executive functions (planning, emotion regulation, attention, etc.), it also contains the primary motor cortex—the structure responsible for the initiation of motor activities.

13. The left hemisphere of the brain controls _____ and the right hemisphere controls _____.

- A. sensation...movement
- B. movement...sensation
- C. the right side of the body...the left side of the body
- D. the left side of the body...the right side of the body

ANSWER: C % Correct: 97.87%

Sensation and movement are controlled—or at least initially processed—by the frontal and parietal lobes of the brain. When discussing hemispheres of the brain, we are often discussing the topic of contralateral communication. Contralateral communication is a term used to explain how the left side of our brain communicates with the right side of our body, and the right side of our brain communicates with the left side of our body.

14. EEG, MEG, PET, and fMRI are all methods of measuring what?

- A. intelligence
- B. visual perception
- C. emotional maturity
- D. brain activity

ANSWER: D % Correct: 100.00%

This was apparently an overly easy question for a midterm. The EEG, MET, PET, and fMRI are all relatively new (within the past 50 year) techniques that scientists have developed in order to determine both where and when the brain is active during different cognitive tasks.

15. After split-brain surgery, what can a person NO LONGER do?

- A. Describe in words what he/she feels with the left hand
- B. Perceive the speed and direction of a moving object
- C. Perceive that an object seen is the same thing as an object heard or felt
- D. Move the left and right hands at the same time

ANSWER: A % Correct: 75.53%

Split-brain surgery involves the severing of a person's corpus callosum. Once this occurs, the two hemispheres of the brain can no longer communicate with each other. Since our ability to speak and generate language is housed in areas found in the left hemisphere of our brain, our ability to articulate what our right hand is feeling—something that the right side of our brain would be responsible for—

would be impossible to do if we have experienced this type of surgery. Interestingly, we only discovered this AFTER many people had undergone this form of surgery in order to remedy a myriad of neurologically linked issues.

16. Dan is attempting to link a specific region of the brain to a mental function. This aim means that Dan is applying the _____ for the link between the brain and mind.

- A. law of modularity
- B. theory of dualism
- C. law of mass action
- D. plasticity principle

ANSWER: A % Correct: 71.28%

In the lectures, we discussed the debate over the law of mass action or the law of modularity to explain the different functions of the mind. The law of mass action suggests that our neural functions are generated by a pattern of responses across the brain, and that there is a need for all areas to be in tact in order to generate a specific cognitive function. The law of modularity supposes that there is either a particular cell, or more likely a cluster of cells, that are responsible for each cognitive function, memory, and every other aspect of the mind that exists.

17. Which statement about the mapping of neural activity in the primary somatosensory cortex is FALSE?

- A. Our primary somatosensory cortex typically has regions on it that can be directly linked to portions of the body
- B. Mapping of the primary somatosensory cortex can change through experience (for example, exercise)
- C. The map of our primary somatosensory cortex overlaps perfectly with the map of our primary motor cortex.
- D. The primary somatosensory cortex is located within our parietal lobe.

ANSWER: C % Correct: 81.72%

This question related to the different discoveries about our primary somatosensory cortex. Answers A, B, and D are all true, and all relate to very interesting discoveries that we have come across over the years. Though answer C has a ring of truth to it, there are several parts of our body that can sense without being able to move (portions of our skin, internal organs, etc.), and there are areas of our body that we can move without feeling sensation (our eyes being the most prominent example of this). Therefore, there cannot be a perfect overlap between the primary somatosensory cortex and the primary motor cortex.

18. Rebecca is interested in linking gender to reported levels of competitiveness. She is coding the variables in her experiment such that participants that identify as male are given a 1 in her data analysis and those that identify as female are given a 2. The level of competitiveness scores range from 1 to 20. The variable of gender is called a _____ variable in this experiment.

- A. ordinal
- B. nominal
- C. interval
- D. ratio

ANSWER: B % Correct: 89.36%

This question was designed to test your comprehension of the topic of variable scales. Though Rebecca coded gender with numbers, since gender itself is a non-directional variable, with numbers just being arbitrarily assigned to each of the respective groups, gender is considered a nominal variable. For these variables, order, averages, and a concept of an absolute zero doesn't make sense.

19. A study of the relationship between two variables that the investigator does not control is a

- A. single-blind experiment.
- B. double-blind experiment.
- C. correlational study.
- D. case history.

ANSWER: C % Correct: 77.66%

This was a definition based question. Studies that look at the relationship of 2 or more variables are called correlational studies. These variables usually have to be interval or ratio variables or this approach is very difficult to use and/or understand. Though there is often a pervading perception that correlational studies are simplistic, they can be of great value when manipulation of a variable is not possible, or directionality is not something that can be determined.

20. An experimenter had participants exercise a lot, a little, or not at all and then measured how much they ate at dinner. What was the dependent variable?

- A. the delay between exercise and dinner
- B. the amount of exercise
- C. the type of food offered
- D. the amount of food eaten

ANSWER: D % Correct: 86.17%

The independent variable in an experimental study is the one that has been manipulated in order to see how this manipulation impacts a second variable. The variable that is theoretically being impacted is called the dependent variable—because levels of this variable hypothetically “depend on” the levels of the first variable. For this example, the amount of food eaten is the variable that appears to be hypothetically impacted by exercise amount.

21. Which of the following is true of normal distributions?

- A. They are symmetrical.
- B. They have a standard deviation of zero.
- C. They have a mean equal to the standard deviation.
- D. They have a mean of zero.

ANSWER: A % Correct: 87.10%

Though answers C and D could be true of some normal distributions, they are certainly not true of all normal distributions. Answer B is never true of any normal distribution, because it implies that every score in a distribution was the same—which would indicate that the distribution of scores ISN'T normal. Answer A, because it is part of what defines a normal distribution, is always true.

22. Identify the correct order of responses to stimuli, based on simplest to most complex response.

- A. REFLEXES; TAXES; INSTINCTS
- B. INSTINCTS; TAXES; REFLEXES
- C. TAXES; REFLEXES; INSTINCTS
- D. INSTINCTS; REFLEXES; TAXES

ANSWER: A % Correct: 80.85%

All of these responses above relate to the innate responses that organisms can display in reaction to a stimulus. They range in complexity based on the number of systems and muscles involved in the reaction. Though instincts are often viewed as a simplistic response, on the list, they involve much more interaction of our body's systems for a much more sustained period of time than the other two. Taxes, which are admittedly not a very often used term outside of this area of study, are the second most complex response since they involve a coordination of only a few systems in order to initiate a response for a slightly sustained period of time. Reflexes are the simplest automatic response to a stimuli that we see in an organism.

23. Classically conditioned responses are different from reflexes, instincts, and taxes because classically conditioned responses

- A. involve more muscles.
- B. are genetically programmed within us.
- C. are not innate responses to stimuli.
- D. involve actions that are intentionally generated.

ANSWER: C % Correct: 75.53%

Reflexes, instincts, and taxes are all partially defined as such because they are all automatically initiated responses to stimuli. No learning is needed in order to display these responses. Classically conditioned responses, though they look automatic in the end, required some type of learning. In classical

conditioning, the learning involves learning about how to pair stimuli in order to display an appropriate response to a stimulus.

24. Ivan Pavlov paired the presentation of food with a sound and measured salivation to each. In this experiment the sound was the

- A. unconditioned stimulus.
- B. unconditioned response.
- C. conditioned stimulus.
- D. conditioned response.

ANSWER: C % Correct: 92.55%

In this formula, the sound is a stimulus. To determine the nature of that stimulus, you have to determine if it originally produced an automatic response. Since the sound did not originally produce salivation, and only began producing the salivation after classical conditioning took place, we would call the sound the conditioned stimulus.

25. The procedure for producing extinction in classical conditioning is to present

- A. the conditioned stimulus, then the unconditioned stimulus.
- B. nothing.
- C. the unconditioned stimulus, followed by nothing.
- D. the conditioned stimulus, followed by nothing.

ANSWER: D % Correct: 89.36%

Extinction involves the forgetting of information. For classical conditioning, it involves the severing of the mental tie between the conditioned and unconditioned stimuli. For this to occur, you would need to produce the conditioned stimulus, but not have the unconditioned stimulus to follow. Some of you answered C for this one. Though this could weaken the belief that the unconditioned stimulus always followed the conditioned one, it doesn't guarantee that an organism will "un-learn" the pairing of the CS with the UCS. This would mean that the conditioned stimulus, when reintroduced, should still produce a conditioned response.

26. Responses that are followed by satisfaction to the animal will be more firmly connected with the situation so that they will be more likely to recur in the future. This is a brief statement of the

- A. law of effect.
- B. principle of temporal contiguity.
- C. disequilibrium principle.
- D. vicarious reinforcement principle.

ANSWER: A % Correct: 82.98%

This is the law of effect, a term created by the famous behaviorist Edward Thorndike. He discovered this law, along with several others that he tied to his concept of instrumental learning, during his work with cats in his puzzle boxes. Thorndike's findings, especially his law of effect, became the catalyst for the work of BF Skinner, who introduced the concept of operant conditioning to explore the learning described by the law of effect in greater depth.

27. An event that can serve as a reinforcer only because of its previous association with other reinforcers is known as

- A. a secondary reinforcer.
- B. a primary reinforcer.
- C. a conditioned stimulus.
- D. an operant.

ANSWER: A % Correct: 94.62%

This was a definition based question. Though all responses that lead to an increased frequency or duration of a behavior are considered reinforcers, determining how these responses became reinforcers can help us determine if they are primary or secondary reinforcers. When a reinforcer only becomes a reinforcer after it has been learned to be the equivalent of a natural reinforcer (for example, money or an A on an exam), we call this reinforcer a secondary reinforcer.

28. The terms "positive" and "negative" in positive and negative reinforcement refer to whether

- A. the behavior is productive or destructive.
- B. the behavior increases or decreases.
- C. something is presented or removed.
- D. reinforcement is larger than or smaller than expected.

ANSWER: C % Correct: 66.67%

This is always the most difficult to understand terminology in our behaviorism topics that we cover. Though positive and negative have their own connotations in our everyday language, in operant conditioning, they mean something else. Positive reinforcers and punishers are responses to a behavior that involve something being presented. They can be good or bad, but they always involve something being introduced. Negative reinforcers and punishers are responses to a behavior that involves something being taken away—or not occurring. Again, they can be good or bad, but they always involve something being taken away or not occurring.

29. UNLIKE classical conditioning, in operant conditioning

- A. every response leads to a combination of both reinforcement and punishment.
- B. individuals learn without actually doing anything.
- C. the individual's response controls the outcome (reinforcement or punishment).
- D. the stimuli will be presented at certain times regardless of the individual's actions.

ANSWER: C % Correct: 92.47%

Though both classical conditioning and operant conditioning involve simple forms of learning, what is learned varies between the two concepts. In classical conditioning, we're learning to pair stimuli together. In operant conditioning, we're learning to commit behaviors more or less in specific environments based on the consequences that we learn to expect after we commit a behavior in those environments.

30. Shaping (in the context of operant conditioning) means

- A. positive reinforcement.
- B. reinforcing successive approximations to a desired behavior.
- C. physically forcing a response.
- D. withholding reinforcement until an undesirable behavior ceases.

ANSWER: B % Correct: 95.70%

This was another definition based question. Shaping is a technique used by behaviorists to elicit a very complex response from an organism that probably will not appear spontaneously. To shape a behavior, you need to reward successive approximations of that behavior (behaviors that get closer and closer to the behavior that you want to elicit) until you can eventually elicit the complex behavior that you are attempting to produce. For example, you can get a pigeon to spin by rewarding it first as it turns to one side, then only after it turns a little more to that side, then only after it turns even more, and so on until it spins completely around in a circle.

31. In an experiment by Bandura, Ross, and Ross, one group of children watched a film in which someone violently attacked an inflated doll. Another group watched a film in which no one attacked the doll. At the end of the film, both groups were put in a room with an inflated doll. Who (if anyone) attacked the doll?

- A. the group that watched others attack the doll
- B. the group that watched others who did not attack the doll
- C. both groups
- D. neither group

ANSWER: A % Correct: 97.85%

This question is referencing a classic experiment of Albert Bandura's. We often just call this the Bobo doll experiment. It answered a question that many social cognitive psychologists were asking at the time—where do personality based tendencies (in this case, aggression) come from? Bandura was able to show in this experiment that a quick viewing of someone else attacking a doll was enough to encourage children to do the same. When children didn't see the violence towards the doll, they followed this lead and also did not attack the doll.

32. An individual receives a reinforcement for the first response after a 1-minute interval, but not again until the next 1-minute interval has passed. This is an example of which type of schedule of reinforcement?

- A. fixed ratio
- B. variable ratio
- C. fixed interval
- D. variable interval

ANSWER: C % Correct: 88.17%

This was a definition question related to the topic of schedules of reinforcement. Many researchers have explored these topics and applications of findings related to these topics over the years. The example above is a prime example of what is called the fixed interval reinforcement schedule. It tends to produce very little activity in an organism once the schedule is learned, though a behavioral display of something called “scallops” can occur if the length of time between the fixed intervals is long enough.

33. Researchers examining the senses contend that we actually have 9 instead of the typically described 5 senses. The extra senses come from

- A. spiritual senses.
- B. individually developed skills.
- C. additional skin senses and proprioception.
- D. extra levels of smell that we have the ability to develop.

ANSWER: C % Correct: 90.32%

Though some of us might like to believe that we can develop our own specialized senses, and others might argue that there is a spiritual sense, neither are part of the 9 senses discussed by sensation psychologists. Most of us already know our 5 senses (touch, taste, audition, smell, and vision), but most do not know that there four additional senses that all relate to information that we receive from our skin. For more information on these additional senses, review the slides on this topic—you can learn some pretty interesting facts.

34. All of our senses are first MENTALLY perceived after

- A. activation of areas of the body.
- B. activation of areas of the brain.
- C. stimulation of nerves along the path from the body to the brain.
- D. our body reacts to the stimulus.

ANSWER: B % Correct: 51.06%

Though this question seems easy, the answer is actually counter-intuitive. Most of us assume—like most psychologists and philosophers assumed for centuries—that our senses are perceived as a result of activity in the sensory organs. However, from research on electrical stimulation of different areas of the

brain and case studies of individuals with phantom limb syndrome, we are now certain that the MENTAL experience of sensations actually come from activity in areas of the brain.

35. Most sensations of touch are initiated from

- A. mechanical alteration of sensory cells.
- B. chemical interactions between sensory cells and the environment.
- C. the conversion of electromagnetic energy into a neural impulse.
- D. the bonding of molecules in our environment with our sensory cells.

ANSWER: A % Correct: 47.87%

Though there are some receptors on our skin that are activated by chemical components, most are not impacted by this. And though our senses of smell and taste do involve the collection of molecules and the conversion of their information into a neural message, this does not occur for touch. Instead, most of our touch sensations appear to be initiated through the mechanical alteration of our sensory cells that are either in the epidermis or dermis of our skin.

36. Our determination of the pitch of a sound comes from neural responses that vary in _____ along the cochlea.

- A. location
- B. response patterns of cones
- C. response strengths
- D. response patterns of rods

ANSWER: A % Correct: 72.34%

Though the pitch of a sound impacts the pattern of response in our ear drum and the bones that connect to that ear drum, the pitch of a sound changes the structures within the cochlea in a different way. The cochlea has a strip of "skin" attached to it that varies in strength and density as it winds through the length of the cochlea. Variations in the frequency of a sound causes different areas of the cochlea and this strip to be moved in response to the sound. We determine the pitch of sound by where these areas are moved, not the frequency at which they are moved.

37. According to the trichromatic theory, how do we tell the difference between red and orange?

- A. by the relative rates of responses by three kinds of cones
- B. by differences in the velocity of action potentials from the visual receptors
- C. by different levels of vibration in the lens and cornea
- D. by the total amount of activity by all the receptors in the retina combined

ANSWER: A % Correct: 90.43%

The trichromatic theory—which has been verified through biological and psychological research—indicates that we determine color by the response patterns of three types of cones located in our eyes. We call these cones long-wavelength, short-wavelength, and medium-wavelength cones. As the light we see changes in wavelength (aka changes in color), the reaction strength patterns of these three types of cones changes and our mind identifies these pattern changes in order to recognize the color changes accordingly.

38. One advantage of the opponent-process theory of color vision, in contrast to the trichromatic theory, is that the opponent-process theory can more easily account for

- A. the differences between rods and cones.
- B. the phenomenon of negative afterimages.
- C. species differences in color vision.
- D. the fact that the retina contains three types of cones.

ANSWER: B % Correct: 85.11%

Though there is considerable evidence to show that the trichromatic theory can explain a large portion of our ability to determine colors, there are some color vision effects that it cannot explain. One of these major effects that cannot be explained is the afterimage effect. This effect CAN be explained by the opponent process theory. The afterimage effect can be experienced if you stare at a picture or color for an extended period of time, and then shift your attention to a white or grey surface.

39. Psychologists define the absolute sensory threshold as the intensity of a stimulus that someone can detect ____ of the time.

- A. 1%
- B. 10%
- C. 50%
- D. 100%

ANSWER: C

This was a question related to the signal detection theory lecture. For signal to be labelled as “detectable”, a person needs to be able to detect that signal is presented at least 50% of the time that it is actually presented. That being said, there are a lot of environmental situations that can move this “detection threshold” up and down.

40. When an experimenter presents a faint light, a particular participant almost always reports seeing it, suggesting great sensitivity to faint lights. According to signal detection theory, what else do we need to know before drawing that conclusion?

- A. whether the person has previous experience in this type of experiment
- B. how often the person made false alarms when no signal was present
- C. whether the intensity of the stimulus varied from trial to trial
- D. how noisy the room was

ANSWER: B % Correct: 87.23%

To determine if someone is correctly identifying a stimulus or just constantly indicating that they saw a stimulus regardless of whether or not they identify it, an experimenter also needs to determine the total number of false alarms that the person committed—false alarms being the times that a person identifies a stimulus when it is not present.

41. Subliminal perception has been shown to exert which of these effects on behavior?

- A. People spend more time reading ads that include subliminal images of sexual stimuli.
- B. People slightly imitate facial expressions that they did not detect consciously.
- C. Subliminal messages to buy something give people a strong urge to buy it.
- D. Subliminal messages to stop smoking help people quit smoking.

ANSWER: B % Correct: 74.47%

Though there has been a great deal of concern about the power of subliminal messaging over the years after the concept was first introduced, research has shown that these messages have only a weak effect at best. The only answer above that has been shown to be true is answer B.

42. Depth perception cues like “retinal disparity” supported the _____ perspective of perceptual psychology.

- A. ecological
- B. constructivist
- C. Gestaltist
- D. subliminal

ANSWER: A % Correct: 55.91%

Though depth perception cues might sometimes seem complex, since distance and size is entirely being determined through these cues by the information that is present (not expectations about the stimuli), these perceptual cues relate to the ecological view of perception. There are, however, many examples of how our mind adds to the information being presented to our eyes in order to make sense of things—something that is examined by Gestaltists—to justify the constructivist view of perception.

43. Retinal disparity is _____ cue of depth, while linear perspective is a _____ cue.

- A. binocular...monocular
- B. monocular...binocular
- C. subliminal...conscious
- D. conscious...subliminal

ANSWER: A % Correct: 96.81%

Both retinal disparity and linear perspective are both cues that we use to determine the distance and size of an object. Retinal disparity is a distance cue that utilizes the different images that both of our eyes are receiving to get an estimate of size and distance. Because we need both of our eyes to take advantage of this cue, it is called a binocular cue. Linear perspective involves our use of vanishing points to determine distance. It only requires one eye, so it is called a monocular cue.

44. Laws of perception like “parallelism”, “symmetry”, “proximity”, and others were generated by perceptual psychologists that called themselves

- A. Freudians.
- B. Gestaltists.
- C. ecologists.
- D. minimalists.

ANSWER: B % Correct: 96.77%

Gestaltists, though not necessarily very common in today’s field, were very common and critically important a few decades ago when a lot of research in the field was dedicated to the topic of perception. Their big goal was to attempt to understand how our minds were able to perceive the world around us. Most of their work focused on the concept of top-down processing—the strategy of comprehending perceptual information by using expectations and assumptions about that information that are generated by mind.

45. People that support top-down processing inherently take on the _____ view of perception.

- A. constructivist
- B. ecological
- C. Freudian
- D. egalitarian

ANSWER: A % Correct: 75.27%

This was a pairing of concepts question. Perceptual psychologists that held the ecological view of perception were in support of the concept of bottom-up processing. Perceptual psychologists that held the constructivist view of perception were in support of the concept of top-down processing. We now believe that our perception probably comes from both top-down and bottom-up processing, but the concept of top-down processing can be linked to the constructivist view of perception.

46. Many optical illusions result from the fact that

- A. light rays of different wavelengths travel at different velocities.
- B. the lens of the eye distorts the shape of objects near the periphery of vision.
- C. the human eye is slightly elongated instead of being spherical.
- D. we tend to interpret 2-dimensional displays as if they had depth.

ANSWER: D % Correct: 83.70%

Though optical illusions come from many things, the only answer above that is linked to a large number of optical illusions is answer D. When we see a 2-dimensional image as a 3 dimensional image, our perceptions of distance, size, and many other perceptual qualities can be disrupted.

47. What causes a phantom limb sensation in an amputated limb?

- A. rewiring of the cerebral cortex
- B. irritation at the point of the amputation
- C. psychological conflict and depression
- D. backward messages from the tip of an axon toward the cell body

ANSWER: A % Correct: 72.34%

Phantom limb sensations are a great example of how our cerebral cortex plays a big role in our experience of our sensations. Phantom limb sensations occur when a person has lost a limb but can still feel the occasional itch or pain in that limb. This almost always occurs for these individuals when their cerebral cortex is rewiring itself.

48. Which of the following is one of the Gestalt principles of perception?

- A. threshold
- B. proximity
- C. myopia
- D. adaptation

ANSWER: B % Correct: 97.85%

This was probably a really difficult closed book question, but obviously it was a fairly easy open book question. The proximity principle is one of the many depth cues used by people to determine the connectedness of stimuli or objects. Basically, it involves our mind automatically pairing objects that are closer together into one group, and separating objects that are further from each other into separate groups.

49. Motion pictures are actually a series of still photos, each slightly different from the last. Our tendency to perceive them as moving is an example of

- A. retinal disparity.
- B. subliminal perception.
- C. motion parallax.
- D. stroboscopic movement.

ANSWER: D % Correct: 77.42%

Stroboscopic movement is a visual cue of movement that we encounter all of the time—and it is also one that has been utilized many times over to indicate the illusion of movement. Though we often use the example of successively blinking lights to illustrate how stroboscopic movement works, stroboscopic movement examples are all around us. For example, all of our televisions and computers are also using this cue when they get you to perceive motion of the objects that are being displayed on their screens—which aren't actually moving.

50. Neurons release neurotransmitters into our

- A. synapses.
- B. axons.
- C. terminal buttons.
- D. bloodstream.

ANSWER: A % Correct: 94.68%

This was a process based question. Neurotransmitters, the common tool used by our neurons to communicate with each other, come from the terminal buttons of our neurons. The neurotransmitters are released into a microscopic gap between these terminal buttons of one neuron and the dendrites of another neuron. This gap is called the synapse.