Perception Review (w/answers)

1. The moon appears larger on the horizon than when it is directly overhead. However, the moon does not change its size or distance from the Earth.
   a. How can this illusion be explained? *Because of distance cues. When the moon is on the horizon the objects on earth (trees, buildings, etc.) are perceived as being further away, an inaccurate depth perception, making the moon seem larger. When the moon is in the sky there are no perceptual cues to draw from making the moon seem further away.*

   b. Use this illusion to explain the difference between sensation and perception. *Without perception there would be no illusion, we would simply use bottom-up processing, relying solely on our sense of sight. With perception we use top-down processing, calling upon prior experiences of depth and expectations of size.*

2. Johnny’s parents always complain that he doesn’t listen to them. They say that when he is watching TV or listening to music, he acts like he just doesn’t hear them. Johnny claims that he doesn’t even remember them trying to talk to him. Johnny’s ability to choose what sensory information he perceives demonstrates _______ selective attention __________________________.

3. When you are watching an IMAX movie, you often feel like you are moving. The fact that your eyes are dominating your perception, despite counter information from your vestibular sense is an example of __ movement perception (stroboscopic movement) ____________.

4. What is Gestalt? Give three examples of Gestalt principles as they relate to perception. *Gestalt is the German word for “whole” or “form”; in Psychology we look for related parts and integrate them into an organized whole. Three examples of Gestalt principles in which we perceive (form) are Proximity, Similarity, and Continuity. The other two are Connectedness and Closure.*

5. When I am standing in front of the class talking and you are focused on me, _____the teacher_______ is the figure and _____overhead screen_______ is the ground. However, when I begin to write on the overhead and you are focused on that, _____overhead screen_______ becomes the figure, and _____the teacher_______ becomes the ground.

6. What is a visual cliff? When do babies acquire depth perception? *A laboratory experimental device to test the acquisition of depth perception in infants and young animals. Babies seem to acquire depth perception between 3-5 months, once some form of mobility is achieved. By six months, no matter how long they’ve been crawling, there is a strong resistance to crossing the “cliff”.*

7. Why is it so hard to catch a ball with one eye closed? Name and describe two binocular cues help with depth perception. *With one eye closed we lose our ability of retinal disparity which allows for the perception of relative distance. As the ball gets closer the disparity increases. Also, the brains ability for convergence and appropriate and accurate neuromuscular communication is thrown off.*

8. You have been asked to paint a picture that includes buildings, fields, a river, and a mountain. Describe how you would use at least five monocular cues to give your painting a sense of depth. *Relative size: Painting trees of the same size in the trees, some at the bottom of the page and others horizon line, at he base of the mountains.
   Interposition: Painting trees in front of the buildings.
   Relative clarity: Painting a river that winds through the pictures and fades into a valley in between mountain peaks.*
Texture gradient: The bark on the trees in front of the buildings is noticeable but there are no distinguishable bark markings on the trees at the base of the mountains.

Relative height: The use of a horizon line with the mountains, clouds and setting sun painted above the line.

9. What is the phi phenomenon? Give an example. When two or more blinking lights that are next to each other blink on and off in quick succession giving the illusion of movement of a single light. A moving arrow on a road construction sign merging two lanes into one. Also, the lilac illusion. (click http://www.michaelbach.de/ot/col_lilacChaser/index.html)

10. Objects that are further away appear to move more slowly than those that are close by. Give an example of this. This is relative motion (or motion parallax). Riding in a car and looking at the fence rails on the side of the road race by while the trees across a field seem to moving much slower.

11. What is perceptual constancy? What are three forms of perceptual constancy that we have? How would your perception be altered if you lacked one or more form of constancy? Perceptual constancy is the perception of the unchanging physical qualities of an object when illumination and retinal images change. The three forms are size, shape and lightness (brightness). (The missing, fourth constancy is COLOR.) If we lacked one or more of our perceptual constancies we would find it extremely difficult to organize and interpret our environment (both physical and mental.)

12. Name one piece of evidence to support the theory that animals (including humans) seem to have a critical period for perceptual development. If an animal, like a cat, is born deaf and is given a cochlear implant the temporal lobe and sensory cortex begin to communicate (plasticity). As an animal, whether a cat or human, the brains plasticity decreases. If the nurturing is halted or withheld, the natural (biological/genetic) development ceases or never develops.

13. What is perceptual set? Give a specific example of how a perceptual set can alter one’s experience. A mental predisposition (or habit) to perceive one thing and not another. A specific example comes from listening to a song and believing that we hear one thing while the lyrics are totally different but we keep singing it our way. (e.g. the song “Send Me On My Way” by Rusted Root, but what you hear is “Simeon the Whale.”)

14. Name and describe the four types of ESP described in your book. The three (four) types of ESP are Telepathy, which is mind to mind thought sending or perceiving between people, the second is Clairvoyance, which is the perception of remote events (I sensed that you knew that though.), the third is Precognition, which is perceiving a future event. (Hmmmnnnnnnnn, Ummmmnnnnnn, I see an “A” in your near future.), the fourth is psychokinesis, which is mind over matter. Just think it and it will happen.

15. Last night, one of your mother’s best friends had a car accident. Your mother feels guilty because three days ago she dreamt of such an accident but failed to warn her friend. How would you explain your mother’s experience? What advice would you give her? My mother’s experience was really a collection of thousands of previous thoughts and memories of prior experiences with some semblance of similarity. All they needed was a story line (a dream plus the accident) to connect them, and this gave her the de ja vu experience. The advice I would give her would be that there is no way to have known that this was going to happen. She is just looking for an explanation out of sadness, guilt and fear.