

# Sensation, Perception, & Consciousness: Questions You Should Be Able to Answer

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Psychology 101 – Albion College

We discussed a number of important topics in class. This is a list of some questions that you ought to be able to address after you have read the text and thought about the material. There is no guarantee that this list is exhaustive; there might well be other things from the class that will appear on an exam.

## Sensation & Perception

1. What is psychophysics?
2. What did our re-enactment of the classical psychophysics study of weight discrimination tell us about jnds?
3. What is an absolute threshold?
4. What is a difference threshold? Be sure to indicate the operational definition.
5. What general statement can be made about the relationship between the jnd and the starting (or reference) value for most sensory systems? What sensory system seems to work in a manner just the opposite of this?
6. What serious visual problem is experienced by a large percentage of people on the island of Pangelay?
7. What is the adequate stimulus for a sensory system?
8. What is meant by the term “transduction” in reference to sensation and perception?
9. What two types of coding are available to sensory systems?
10. How does transduction occur in the visual system?
11. How does the mechanism of transduction account for dark adaptation?
12. How does information get from the photoreceptors to the visual cortex?
13. What causes the blind spot?
14. Describe the two historic theories explaining color vision. Which one is supported by negative afterimages?
15. How does the visual system process and encode yellow light?
16. What is the figure-ground problem? What stimulus and personal factors affect one’s solution of this problem?
17. Describe three Gestalt laws of organization.
18. What three ocular cues provide information about depth?
19. List three stimulus cues that provide depth information.
20. What retinal effect gives rise to the perception of movement?
21. Describe the two illusory movements that we discussed: the phi phenomenon and the autokinetic effect.
22. What is meant by “top-down” processing?
23. Briefly describe the perception that one experiences when multiple ambiguously moving stimuli are presented simultaneously (as in the video clip from Ramachandran).
24. Briefly describe Held and Hein’s study on the development of visual perception. What did they do, what did they find, and what do the results tell us about visual development?
25. What did the Nobel-prize-winning research of Hubel and Wiesel tell us about cells in the visual cortex?
26. What did Spinnelli’s research say about the development of orientation-specificity in visual cortex cells?
27. What wild speculation does Dr. Wilson suggest about the implications of the Spinnelli finding?

## Consciousness

1. Suggest an operational definition for consciousness.
2. Describe the physiological measures typically monitored in sleep research. How do these measures differ in slow-wave sleep and REM sleep?
3. What purpose is served by REM sleep atonia?
4. What are sympathetic storms and what are some of their effects?
5. Describe the course of a normal night's sleep.
6. If allowed to awaken normally, do people typically awaken from slow-wave sleep or REM sleep?
7. How does sleep change between infancy and young adulthood?
8. Discuss three functions proposed for REM sleep.
9. What is the "flower-pot technique?"
10. Briefly describe each of the following sleep disorders: sleep apnea, narcolepsy, pseudoinomnia.
11. What changed state of consciousness is characterized by an increase in suggestibility?
12. Will a hypnotized person do something that they would normally be morally opposed to doing?
13. What do Gerow and Bordens mean when they classify drugs as stimulants, depressants, or hallucinogens?
14. Provide an example of a drug from each of Gerow and Bordens' drug classes.
15. Through what two mechanisms might LSD produce its effects on consciousness?