

## Chapters\_12-15\_practice\_test

## Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 1. The mechanoreceptor that adapts quickly and is most sensitive to high vibration frequencies is the
- a. ruffini receptor (SA2)
  - b. merkel receptor (SA1)
  - c. pacinian corpuscle (RA2)
  - d. miessner receptor (RA1)
- \_\_\_\_\_ 2. The \_\_\_\_\_ is the shortest segment of speech that, if changed, changes the meaning of a word.
- a. morpheme
  - b. phoneme
  - c. formant
  - d. tadoma
- \_\_\_\_\_ 3. Which of the following is **not** a cue for auditory grouping?
- a. similarity of configuration
  - b. proximity in time
  - c. similarity of location
  - d. good continuation
- \_\_\_\_\_ 4. Which of the following senses sends signals directly to the amygdala?
- a. vision
  - b. smell
  - c. hearing
  - d. touch
- \_\_\_\_\_ 5. The representation of the fingers on the map of S1 can be disorganized in
- a. 3-finger Braille readers
  - b. 1-finger Braille readers
  - c. taste-shape synesthetes
  - d. the star-nosed mole.
- \_\_\_\_\_ 6. The feature that separates the phonemes /da/ from /ta/ is the
- a. short term spectrum.
  - b. formant transition.
  - c. voice onset time.
  - d. interaural time difference.
- \_\_\_\_\_ 7. Which is the best auditory cue for localizing the azimuth of a *low* frequency sound?
- a. Interaural Time Difference
  - b. Head Related Transfer Function
  - c. Interaural Level Difference
  - d. Intimacy Time
- \_\_\_\_\_ 8. Weber's law holds well for olfaction with a Weber fraction of about 11%. This means that if a subject can just discriminat two oderants with particle densities of \_\_\_\_\_ and \_\_\_\_\_ parts per million.
- a. 20; 21
  - b. 0; 11
  - c. 100; 111
  - d. 50; 61

Name: \_\_\_\_\_

ID: A

**Short Answer**

9. Suppose that, like 'supertasters', there were a population of 'superseers' that had four types of cone photoreceptors instead of three. What problems would this cause for the presentation of colors on televisions, LCD projectors, and CRT's?

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Answer Section**

**MULTIPLE CHOICE**

1. ANS: C
2. ANS: B
3. ANS: A
4. ANS: B
5. ANS: A
6. ANS: C
7. ANS: A
8. ANS: C

**SHORT ANSWER**

9. ANS:  
Televisions, projectors and CRT's can mimick nearly all possible colors because of trichromacy. By adjusting the intensities of the three color elements on these displays, an object on the screen will have the same color as a natural object as long as they both excite the three classes of photoreceptors the same way. This metameric match could easily be obtained from two very different spectra. A fourth photoreceptor is likely to be excited differently between the object on the screen and the real object, and will therefore look different to the 'superseer'. Superseers would therefore require four color elements to reproduce the range of colors they could perceive.