

**Psyc10003 2015**  
**Sensation and Perception - SJC**  
**Multiple Choice Questions**

30 of these will appear on your exam with 4 alternatives for the answer. I suggest you go through these, read the commentaries and the essays I gave you and consider reasonable answers. Some of the questions need you to think about the answer rather than just find it (e.g. qu 8)! The alternatives given in the exam will not be contorted or tricky. Start discussions on LMS about the harder ones and I will add comments to these discussions. Come and see me if you need to.

1. Which of the following best describes the Platonic view of vision and the world?
2. Which of the following is the alternative view which is illustrated in the writing of Friedrich Nietzsche?
3. The world that we visually sense is entirely dependent upon.....
4. Excitation refers to.....
5. Sensation refers to.....
6. At what stage in the visual pathway is an action potential first generated?
7. What do L, M and S denote when applied to cones?
8. What reason may you have for expecting the photoreceptors to be physically anchored on the retina despite the observation that this means that there is neural matter between the light source and the photoreceptor?
9. A colour space is.....
10. Orthogonality in the vector representation of signal-coding confers which of the following properties upon that stage of the system?
11. Which statement best describes a receptive field?
12. What is the most likely format of the first spatially structured (or differentiated) receptive fields in the visual system?
13. The receptive field arrangement referred to in Question 12 confers what properties to the system?
14. The term "opponency" refers to.....
15. Why, when considering the processing of the neural signal, is the actual physical location of any visual neurone other than the photoreceptors, arbitrary?
16. Why, however, is the *relative* location of any sensory neurone potentially important?
17. What is meant by the term "retinotopic mapping"?
18. The term "phase-coherence" refers to the hypothesis that.....
19. The idea of modularity in visual processing refers to.....
20. What reason may you have for questioning the assumption that the LGN is just a relay station for signals traveling from the retina to the cortex?
21. Taken as a population, primary visual cortical (v1) neurones have what critical property?
22. An example of context-dependency in vision is.....
23. What is red?
24. An attentionally-controlled motion system may....
25. The visual system appears to dissociate motion-signals elicited by eye-movements or from retinal motion by.....
26. The spatial structure of natural textures is consistent with the properties of the system because.....
27. "Adaptation" refers to...
28. What is meant by the term "parallel processing"...
29. The terms M and P in the context of the visual system refer to....
30. Information is...

31. A vector is...
32. The theoretical hierarchy established by David Marr is.....
33. "Retino-cortical expansion" refers to.....
34. The two most likely kinds of motion detector in the human visual system are called....
35. The three critical dimensions of vision are...
36. The term "Biological motion" describes.....
37. Interaction between V1 orientation-selective receptive fields follows what 'laws'?
38. The visual system is sensitive to.....
39. One critical similarity between the visual and auditory systems is .....
40. One critical difference between visual and auditory systems is.....
41. Which two structures or processes exploit the properties of orthogonality in their operation?
42. What aspect of the relationship between the stimulus and the cortical representation is different between vision and audition
43. What is meant by "tonotopic mapping"?
44. "Place theory" in hearing refers to.....
45. "Frequency theory" in hearing refers to.....
46. A form of parallel processing in the auditory system is implemented in the cochlear nucleus by.....
47. What particular aspect of the relationship between the stimulus and the cortical representation is different between vision and audition
48. What critical neural interaction is affected by, among other things, hallucinogenic drugs?
49. Your experience of reality is.....
50. Synaesthesia is....
51. One fish, two fish,.....