

## PSYC202-005 — Sample Final Questions — April, 2002

The following questions have been provided as examples of those that *may or may not* appear on the actual final examination – which will be held Monday April 22, 2002 in SRC B. In addition to these questions, material covered in *lectures, tutorials, assignments* and the *readings* since reading break may be included on the actual final examination. These are only sample questions that have been taken from past PSYC202 examinations and may not completely reflect my own personal biases. At the final examination you not be allowed to use notes or books or other aids.

Obviously not all of these questions could be included on a two hour final, and possibly none of them will – but many students asked for a “sample final” and here it is. It is my hope that working through these questions will inspire you to study all of the course material, and ultimately understand it rather than just memorize it. I suggest you confirm your answers with at least one other classmate. I will not provide an answer key.

On Monday April 15, in the Suedefeld lounge in Kenny (Second floor, across from the Psychology Department offices) from 2:00-4:00 I will host a review session. Bring your questions.

Good luck with all of your end of term projects and exams!

Dr Jason Harrison

---

Each multiple-choice question has one best answer.

1. After a stroke, Joe could recognize a pencil visually, he could name it, but he had forgotten how to use it. Which form of memory was affected?
  - a semantic
  - b visuomotor
  - c procedural
  - d amnesic
  
2. An \_\_\_\_\_ cue reflects \_\_\_\_\_ control; it is influenced by the beliefs of the observer.
  - a endogenous; top-down
  - b endogenous; bottom-up
  - c exogenous; top-down
  - d exogenous; bottom-up
  
- 3 Which symptoms are consistent with prosopagnosia?
  - a a patient does not remember you after you leave the room
  - b a patient does not remember having a wife
  - c a patient does not recognize his wife’s picture
  - d a patient’s MRI scan reveals bilateral damage to the hippocampus

- 4 Although famous patient HM has severe memory problems, he can still learn
- the name of the new prime minister
  - how to touch type
  - the name of the hospital where he was born
  - answers to new arithmetic problems
- 5 The neuropsychological condition of neglect is more likely to occur following
- brain damage to the left hemisphere
  - brain damage to the right hemisphere
  - brain damage to the frontal cortex
  - brain damage to the thalamus
- 5 What aspect of cognition are you most likely to be conscious of?
- simple processes involved in size constancy and stereo depth perception
  - complex processes such as the rules of grammar
  - the neural circuits behind the thoughts we have
  - products of cognition such as an apparently oversized moon on the horizon
- 8 The amount of information that we can keep active at any one time in our conscious experience is about \_\_\_\_\_ different items.
- 1
  - 3
  - 7
  - 44
9. The neuropsychological condition of astereagnosia means that
- the patient cannot recognize objects by sound
  - the patient cannot recognize objects by touch
  - the patient cannot recognize individual tunes
  - the patient has a deficit in auditory attention
- 10 In a priming study the word that is processed unconsciously but that still influences behavior is the
- word-stem to be completed by the observer
  - word that is briefly flashed before being masked
  - word that is played backward by reversing the tape
  - word that forms the backward mask itself
11. Which best describes the "looking glass syndrome"?
- parts of one's body seen in a mirror appear to belong to someone else
  - objects seen in a mirror are treated not as reflections, but as real objects
  - objects seen in a mirror appear to have their left and right sides reversed
  - inability to draw an object based on its reflection in the mirror
12. The amount of information that we can keep active at any one time in our conscious experience is about \_\_\_\_\_ different items.
- 1
  - 3
  - 7
  - 42

13. Baddeley's model of working memory included which slave systems?
- a central executive and morphemic loop
  - b morphemic loop and short-term memory
  - c visuospatial sketchpad and phonological loop
  - d phonological loop and iconic memory
13. One possible reason why the “good guy” seems to always win the gunfight in a Western movie is that
- a the good guy has faster reflexes
  - b the bad guy is operating on “automatic pilot,” which is too slow
  - c the good guy does not have to make a conscious decision to act
  - d the bad guy signals his intention to move with a twitchy wrist
14. Letters are to written English as \_\_\_\_\_ are to spoken English.
- a consonants
  - b vowels
  - c syllables
  - d phonemes
15. Discreteness in a language is useful because
- a it allows language to be put into written form
  - b it allows language to be generated by systems of neurons
  - c it provides rapid learning of language
  - d it provides a degree of robustness to noise
16. Blakemore's experiment showed that for kittens raised in a visually deprived environment
- a colour perception did not develop normally
  - b the lens of the eye did not develop normally
  - c object perception never became linked with touch
  - d edge detectors in visual cortex did not develop normally
- 17 Human infants
- a cannot discriminate speech sounds at all
  - b can discriminate their own language sounds better than adults
  - c lose the ability to discriminate some speech sounds by the age of 1 year
  - d can associate random visual cues to speech sounds with auditory cues
- 18 Which factors are likely to speed up the search for a letter Q in a list of other letters?
- a the rest of the list is composed of angular letters
  - b the rest of the list is composed of round letters
  - c increase the number of target letters being searched for
  - d ask people to search in the same way they read, from left to right

- 19 In visual search for a target defined by a conjunction (combination) of color and shape
- a the number of distractors doesn't affect search speed, the target pops out
  - b searching is effortful and search time increases with each display item
  - c searching takes less time than in a moderately easy, parallel search
  - d searching is a serial-exhaustive process, meaning that search continues even after the target has been found
- 20 During human development the neural functioning of the frontal cortex may continue to mature for some time, reaching adult capabilities only after
- a 3 months
  - b 5 to 7 months
  - c the end of the second year
  - d puberty
- 21 Broca's aphasia refers to deficits in \_\_\_\_\_
- a object and face perception
  - b somatosensory perception
  - c speech perception
  - d speech production
- 22 The eyes of a newborn infant differ from the eyes of an adult in that
- a they are closed at birth
  - b they are not connected to the cortex
  - c they cannot be moved at will
  - d the fovea is not well formed
23. When chickens wear goggles that shift the incoming image sideways, they
- a eventually adapt perfectly
  - b eventually adapt, although a delay always exists
  - c eventually adapt, but only if lighting is from above
  - d never adapt at all
24. According to Gregory, the question "what is consciousness?" is difficult to answer because
- a consciousness has no analogy with anything else in nature
  - b consciousness takes place inside the head of an observer
  - c consciousness involves time delays that are difficult to reason about
  - d consciousness is not a well-defined phenomenon
- 25 In blindsight, a stroke patient may be able to
- a name an object that cannot be seen
  - b see an object but not be able to name it
  - c see an object but be unable to grasp it with the hands
  - d reach for an object than cannot be seen
- 26 The "illusion of complete perception" refers to the fact that
- a we have a rich and detailed mental representation of the visual field
  - b perception cannot be distinguished from hallucination
  - c we tend to see only what we attend to, although we think we see more
  - d our perception is governed almost entirely by memory

- 27 The “do it yourself” principle of memory refers to the finding that memories are strongest for information
- a that has been generated by the subject, not by the experimenter
  - b that is presented to vision rather than audition
  - c that is dependent on the subject’s conscious strategy to recall
  - d when a person has more than one self or personality
- 28 Which technique would ensure the best retention of information for an exam?
- a maintenance rehearsal
  - b elaborative rehearsal
  - c “loud and fast” rehearsal
  - d implicit priming
- 29 Someone with bilateral hippocampal brain damage, like HM, is likely to exhibit amnesia that is
- a anterograde
  - b retrograde
  - c specific to semantic memory
  - d specific to implicit forms of memory
30. During human development the neural functioning of the visual cortex may continue to mature for some time, reaching adult capabilities only after
- a 3 months
  - b 5 to 7 months
  - c the end of the second year
  - d puberty
- 31 Under which conditions are we NOT able to perform two cognitive operations at the same time?
- a when both tasks demand our attention
  - b when one task demands our attention and the other is automatic
  - c when two visual attributes belong to the same object
  - d when each of two tasks can be performed automatically
32. Broca’s aphasia refers to deficits in \_\_\_\_\_
- a object and face perception
  - b somatosensory perception
  - c speech perception
  - d speech production
33. According to Ramachandran, the syndromes of neglect and denial are such that
- a they can occur independently
  - b whenever there is denial, there is neglect
  - c whenever there is neglect, there is denial
  - d they always occur together

34. Ramachandran uses the “kindling hypothesis” to try to explain
- a the effects of caloric stimulation on hemi-neglect and denial
  - b Capgras syndrome
  - c hyper-religious experiences in some temporal lobe patients
  - d anosognosia
35. After a stroke, Joe could recognize a pencil visually, he could name it, but he had forgotten how to use it. Joe was diagnosed with
- a tactile agnosia
  - b visual agnosia
  - c apraxia
  - d anomia
36. Recalling an event from your childhood involves which memory system?
- a autobiographical
  - b episodic
  - c semantic
  - d implicit
37. The cocktail party effect suggests that
- a drinking has a negative influence on perception
  - b most of what we ignore is nonetheless processed by the brain
  - c we can attend to two things at a time if we try hard
  - d very little information that we do not attend is available to our consciousness
38. A stimulus that cannot be seen because of neglect
- a can still influence conscious choice
  - b is usually filled in
  - c can never be seen in a mirror
  - d is simply "not there" in terms of conscious behaviour
39. According to Libet
- a consciousness precedes free will by 500 ms
  - b free will precedes decision making by 500 ms
  - c decision making only appears to precede free will
  - d consciousness is delayed compared to decision making
40. Someone with the belief that they are dead suffers from
- a Cotard's syndrome
  - b Capgras' syndrome
  - c Caspar's syndrome
  - d Charcot's syndrome
41. According to Ramachandran, mental images are weaker than real ones because
- a the feedback paths generating them don't have as many fibers
  - b we won't get confused between reality and imagination
  - c the "zombie" system is not involved
  - d it makes it easier to change the meanings associated with mental images

42. A grapheme is defined \_\_\_\_\_ : a phoneme is defined \_\_\_\_\_.
- a acoustically: articulatorily
  - b perceptually: linguistically
  - c for a specific language: for all languages
  - d auditorily: visually
43. According to Ramachandran, the perception of what's behind your head
- a involves qualia that we see (and remember)
  - b involves qualia that we briefly see, but then forget
  - c involves mental images that "fill in" the missing information
  - d involves neither qualia nor mental images
44. Sternberg's analysis of short-term memory scanning is a nice illustration of how research in \_\_\_\_\_ can lead to progress in understanding the mind.
- a cognitive psychology
  - b computational science
  - c neuropsychology
  - d brain imaging
45. Which of the following best describes Chomsky's idea of a universal grammar?
- a constraints on which words can follow any given word
  - b rules for the onset of a syllable
  - c an innate set of rules for linking words to meanings
  - d constraints on combining phrases in a language
46. Which of the following can an infant typically not see at 1.5 months of age?
- a blue
  - b looming
  - c depth
  - d motion
47. The tecto-pulvinar system
- a goes to the tectum and then directly to the lateral geniculate nucleus (LGN)
  - b goes to the superior colliculus (SC) and then directly to the pulvinar
  - c goes to the tectum and then directly to the frontal eye fields (FEF)
  - d is an evolutionarily recent system that assists with eye movements
48. Which best describes the "mystery of the self?"
- a how do unconscious neurons and brain regions produce a conscious self?
  - b why is there only one self when there are two cerebral cortexes in each head?
  - c why are upside down retinal images experienced as upright?
  - d why is there no single region in the brain that controls everything else?

- 49 In selective visual attention, the \_\_\_\_\_ region of the brain acts as a chief executive officer, while the \_\_\_\_\_ region is involved in the actual selection of certain visual features and inhibition of others.
- anterior: posterior
  - posterior: anterior
  - temporal: parietal
  - dorsal: ventral

**Answer the following questions briefly. Be sure to "walk" the reader through your diagrams in words if you use diagrams.**

- Describe the **habituation-dishabituation** procedure used in infancy research.
  - Draw and label a **graph** showing the habituation phase of the experiment.
  - Add a section to the **graph** showing the dishabituation phase.
  - Show a hypothetical **set of results** for a study in which no discrimination is evident between familiar and novel stimuli. State clearly what the stimuli are.
  - Show a hypothetical **set of results** for a study in which good discrimination is in evidence. State clearly what the stimuli are.
- In what ways does it appear that the conscious mind is able to influence behavior?
  - In what ways does it appear that consciousness exerts no control over behavior?
  - In what ways does it appear that consciousness interacts with learning?
  - What **lesson** do you derive from these observations for taking conscious control over your own behavior?
- How can a vision scientist study visual attention using only the behavior of a seeing human subject? Describe the procedure for studying **exogenous visual cuing**.
  - Describe the **stimulus sequence**, using a diagram
  - Describe the **instructions** to the subject
  - Describe the **results** from the experiment, using a diagram
  - What do the results tell us about the **influence of attention on perception**?
- Memories change over time. Several factors that have been identified that can lead to systematic distortions in what is remembered, including (a) incomplete retrieval cues, (b) suggestions in the retrieval context, (c) source misattributions. **Describe how each** of these factors work to distort memory. **Give an example from everyday life** to illustrate each concept.
- Show that you understand Ramachandran's test for consciousness by discussing whether an ant might be conscious or not.
  - Define** the three aspects of the test.
  - Illustrate** each with an example from human behavior.
  - Speculate** on related tests for ants.
- In which ways does visual attention affect how we see? What forms of blindness result when attention is not present? Given that attention is so limited, why do we have the impression that we see everything in detail at any instant?

- 7 How does human natural language differ from other forms of human communication? How does it differ from animal communication? **Describe four** universal design features of human language. **Give an example from English** to illustrate each feature.
- 8 Show that you understand Ramachandran's view of qualia by discussing whether an electric fish might be conscious (i.e. have qualia) or not.
  - a **Define** the three laws of qualia that Ramachandran proposes
  - b **Illustrate** each with an example from human behavior.
  - c **Speculate** on related tests for the electric fish.