Final exam review questions

Chapter 2b

1. K.C. sustained brain damage in a motorcycle accident. What type of memories was he unable to access? What memories were intact?
2. Define dissociation and double dissociation and be able to provide an example for each.
3. What are the three primary structures of a neuron and what are their functions?
4. What are the principles of convergence and divergence.
5. What are the two effects of neurotransmitters?
6. Name the neurotransmitter that plays a major role in memory and learning.
7. What three brain structures are highly relevant to our study of cognition? What are the roles of each?
8. Define contralaterality and cerebral lateralization.
9. Understand the subtraction technique and the logic behind its use.
10. What was the design/results of the Peterson, Fox, Mintun, & Raichle (1989) PET experiment?
11. What was the design/results of the Hughes & Cabeza (2000) ERP experiment?
12. What is the 'split brain' procedure and why is it used?
13. Know the difference between the various neurocognitive methods (lesions, direct stimulation, CAT, MRI, fMRI, PET, EEG, and ERPs)

Chapter 9b

1. Define aphasia.
2. What are the three most common forms of aphasia?
3. What are the features of Broca's aphasia? What region of the brain is affected?
4. What are the features of Wernicke's aphasia? What region of the brain is affected?
5. What are the features of conduction aphasia? What region of the brain is affected?
6. What is anomia? Where is the damage usually located?
7. Osterhout & Holcomb (1992) used ERPs to study people's sensitivity to the syntactic structure of sentences. What were the results of this study?
8. What were the results of Reichle, Carpenter, & Just's (2000) fMRI experiment?
9. Dehaene et al., Kim et al., and Wagner et al. studied bilingualism and the brain. What were the results of these studies? What does this tell us about bilingualism?

Chapter 8b

1. What is a false memory?
2. Describe the procedure used by Roediger & McDermott (1995). What were the results of this experiment? What does this suggest about the fallibility of memory?
3. What is the difference between 'content accuracy' and 'technical accuracy'?

4. Describe the experiment by Loftus & Palmer (1974). What were the results and implications of their findings?
5. Define 'memory impairment' and 'the misinformation effect'.
6. Name and describe the three effects described by Loftus (1991) that play a primary role in memory impairment.
7. What two factors play a role in our tendency to be overconfident in our memories?
8. Why should we be critical of eye-witness testimony and 'recovered' memories?
9. Define autobiographical memory.
10. What were the results of the Bahrick et al. "Fifty Years of Memory for Names and Faces" experiment?
11. What is prolonged acquisition?

Chapter 9:Language

1. What are 5 reasons that cognitive psychologists study language?
2. How does Linguistics differ from Psycholinguistics?
3. What are some important linguistic universals mentioned by Hockett?
4. What is the linguistic relativity hypothesis? Is there evidence for this hypothesis?
5. What are the 5 levels of language analysis?
6. Do non-animals produce language?
7. Why did Chomsky focus on studying linguistic intuitions? What are 4 types of linguistic intuitions?
8. What are some reasons that phonemes are invariant? How do individuals overcome this problem when comprehending language?
9. How did Pollack & Pickett (1964) demonstrate that context facilitates phonemic perception?
10. What is the integrative or interactive approach to speech recognition (Rapp & Goldrick, 2000)?
11. How does the Left-to-Right Grammar approach explain universal aspects of syntactic knowledge (i.e. grammar)? What are some problems with this approach?
12. How does Phrase-Structure-Grammar explain the universal aspects of syntax? What are some strengths and weaknesses of this approach?
13. What is Chomsky's Transformational Grammar approach? What are some strengths and weaknesses of this approach?
14. What is case grammar? Is there evidence for this approach?
15. What does Bock (1982) cite as current directions in psycholinguistics towards the study of syntax?
16. Describe Fillenbaum's (1974) study on how semantic knowledge influences syntax.
17. What are some predictions of the Semantic Grammar approach?

Chapter 10: Comprehension

1. Describe Jarvella's (1971) study on memory and comprehension.
2. Describe Bransford & Johnson's (1973) study on effect of prior knowledge on comprehension.
3. According to Gernsbacher (1990), what processes are involved in building mental structures in order to comprehend language? What evidence exists to support this structure building approach?
4. How do scripts influence our memory and understanding for text?
5. How does perspective taking influence our memory and understanding for text?
6. What is the Situation Model approach to comprehension? Is there any evidence for this approach?
7. Define reference, implication, & inference. Give an example of a type of direct reference and indirect reference.
8. If you say, "I like your outfit today" to someone and they respond: "So what, you think my outfit yesterday was ugly?", they are likely making what form of inference?
9. How do themes, linking and drawing inferences influence story comprehension?
10. Describe the immediacy assumption and eye-mind assumption associated with reading research.
11. What types of words to individuals tend to fixate upon when reading?
12. Describe Just & Carpenter's model of reading comprehension.
13. What is a proposition? Describe research evidence suggesting that propositions are the unit of analysis in language comprehension.
14. According to Kintsch (1979), what factors make comprehension slower? What factors make is faster?
15. What are the four conversational maxims derived from the cooperative principle?

Chapter 11: Decision Making

1. Define/describe a syllogism & discuss two main problems.
2. Define/describe conditional reasoning & the three broad categories of errors.
3. Differentiate between induction & deduction.
4. Define & give an example of the symbolic distance effect & the semantic congruity effect.
5. Define & give an example of the availability heuristic.
6. Imagine you are trying to guess the amount of students in your psychology class & you overhear a friend guess that there are 220 students. What heuristic are you likely to use?
7. When subjects were given base rates & personality descriptions and asked to estimate the likelihood that a described person was a member of one or another profession what info were they most likely to use and why?
8. What is counterfactual reasoning. Name and describe the three types of changes people make that may lead to different outcomes.
9. The way something is phrased affects our choices. How do we differ when something is framed in terms of losses versus gains?

10. Is this syllogism true or false? Draw a Venn Diagram
                    All trees are alive
                    All plants are alive
                    All trees are plants
11. What is useful about the representativeness heuristic?
12. Differentiate between an algorithm and a heuristic.
13. You win the lottery and your roommate says, "I knew that would happen". What bias is your roommate demonstrating?
14. Define /describe the discriminability effect.
15. What does jnd stand for? Define jnd.

Chapter 12: Problem Solving
1. What are the four features of problems?
2. Name & describe the two types & two kinds of problems. Give an example of each.
3. What is the problem space?
4. Name and give an example of Greeno's three types of problems.
5. Distinguish between mental set and functional fixedness. Give an example.
6. According to Gick & Holyoak (1983), when don't we use analogies?
7. What is involved in a means-end analysis.
8. Define creativity and describe four steps to the creative process.
9. What did Metcalfe & Wiebe's (1987) results about warmth ratings tell us about problem solving?
10. Posner (1973) suggested that an interruption during problem solving should help. List three reasons why interruptions help.
11. The multiconstraint theory proposed by Holyoak & Thagard (1997) suggests people are constrained by three factors when trying to use or develop analogies. Describe these factors.
12. Anderson proposed a general model called ACT*. What does ACT stand for?
13. What are the three major components of ACT?
14. What are some suggestions for improving problem solving?
15. What is satisficing?