Thinking 1

1. Use an example to describe why the difference between analogical and symbolic representations should be viewed as a continuum rather than categorical.
2. Using examples describe the strengths and weaknesses of analogical and symbolic representations. Your discussion should make it clear why analogical representations themselves are not sufficient to support human thought.
3. What can we learn about how our representations are structured from the sentence verification task?
4. What is transcranial magnetic stimulation (TMS)? How is it a useful complement to brain imaging as a research tool to understand neural function?
5. What is *diffuse-mode* thinking? Contrast it with directed or *focused-mode* thinking.

Thinking 2

6. Compare and contrast System 1 and System 2 thinking. Be sure to discuss the advantages and disadvantages of each. How might they be used together?
7. Describe a real-life example of an anchoring effect. What is the mechanism that causes anchoring effects? How large might such an effect be?
8. Using examples discuss the difference between syllogisms that do and do not have meaning conflicts.
9. Summarize an experiment that looks at how the success of System 2 thinking can be altered by manipulating the amount of working memory that is available. What does an experiment such as this tell us beyond what we know from the observation that the success of System 2 thinking increases for individuals with larger measured memory span? Discuss the implications of this research for obtaining the best performance in situations in which System 2 thinking is important.

Thinking 3

10. What is the corpus callosum? Describe its functional role. What other structures in the brain are similar?
11. What is meant by functional asymmetry of the hemispheres of the brain? Describe how this asymmetry relates to handedness, language production and comprehension, and the way that events in the world are processed.
12. How is hand dominance related to which hemisphere is dominant for language processing?
13. If you were concerned that you were with someone having a stroke, what could you do to help confirm or disconfirm this suspicion? Why is it important to make this determination quickly?
14. What is meant by "body sense"? What does the rubber hand experiment tell us about body sense?
15. Discuss the similarities between the experiences reported by people having near death experiences, people having strokes affecting their left hemispheres, people taking various hallucinogenic and other drugs, and people, who are accomplished at meditation, while they are meditating.

Thinking 4

16. Summarize what we can learn from patients whose corpus callosum has been severed about functional asymmetry of the left and right hemispheres. What differentiates these patients from people with an intact corpus callosum?
17. What is an emotion? What triggers them and what do they in turn change?
18. Emotion and cognition were long separate, independent, from some perspectives even antagonistic systems. Modern theory suggests that they are interdependent. What are the implications of this theoretical evolution?
19. The suspension bridge experiment of Dutton & Aron (1974) was one of several experiments that led to modern theories about the relation between cognition and emotion. Summarize the procedures of this experiment. What were the results? How can they be interpreted?
20. Summarize *cognitive appraisal theory*. How does it suggest cognition and emotion are related?

Thinking 5

21. The situations like the "trolley car dilemma" have challenged moral philosophers for centuries. Outline the story and variations that lead to this dilemma. What do we learn from imaging studies of participants while they are solving these problems?
22. Compare and contrast the Heuristics and Biases (HB) approach to expertise to that of Naturalistic Decision Making (NDM).
23. How is intuition related to expertise?
24. What distinguishes fields in which you would expect the judgments of experts to be reliable from those in which they would not be reliable?