

10% of final grade, (12 points graded out of 10)
Decision Making, Problem Solving, Creativity, & Intelligence

1) CREATIVITY

- a) Identify four characteristics of “CREATIVE INDIVIDUALS” (as discussed in class and/or the text)

[1/2 point]

1.

2.

3.

4.

- b) Identify (by author, formal label, or description) three different overall perspectives on Creativity

[1/2 point]

1.

2.

3.

2) REASONING

- i) Define the important elements/structure of each type of reasoning problem. Provide an example of each.

1. Conditional Reasoning

[1/2 point]

2. Syllogistic Reasoning

[1/2 point]

3) Identify the four constituent elements of a well-defined problem. Be sure to use the appropriate technical terms

[1 point]

i).

ii).

iii).

iv).

4) Identify four ways in which EXPERTS differ from NOVICES

[1 point]

i)

ii)

iii)

iv)

5) Describe each

[1 point]

i) Subjective Probability for low frequency events:

ii) The concept of utility and how it is used in understanding human decisions

iii) Euler Circles

iv) Negative Set

6) DEFINE: (.25 each after the first correct)

- i) ILLICIT CONVERSION
- ii) CONFIRMATION BIAS
- iii) RESTRUCTURING
- iv) Halo Effect

7) Consider which card or cards would you turn over to obtain conclusive evidence about the following rule for mailing: An envelope that weighs more than two ounces must have additional postage (assume postage rates are .42 for normal letters and .75 for overweight letters). Circle the relevant envelopes that you would need to check in order to test this rule.

- i) Chose envelope(s)

3 Oz.

1.9 Oz

\$.42

\$.75

- ii) Which of the above reflects "DENY THE ANTECEDENT"? _____

- iii) Does "denying the antecedent" lead to a logically valid interpretation?

- 8) List an additional 4 ways in which to improve problem solving (as discussed in class)**
- a) Increase domain knowledge
 - b) Change the problem representation
 - c) Automate some components
 - d) Follow a systematic plan
 - e)
 - f)
 - g)
 - h)
- 9) Differentiate the Symbolic Distance Effect from the Semantic Congruity Effect. (Provide an example of each and demonstrate your understanding of the two terms).**

10) DESCRIBE THE DIFFERENT APPROACHES TO UNDERSTANDING INTELLIGENCE FROM AT LEAST THREE DIFFERENT THEORISTS

i) THEORIST: _____ PERSPECTIVE: (define)

ii) THEORIST: _____ PERSPECTIVE: (define)

iii) THEORIST: _____ PERSPECTIVE: (define)

BONUS

11) How might the simulation heuristic lead to better decision making?

12) DEFINE:

i. Atmosphere Hypothesis

ii. Conjunctive Fallacy

iii. Framing Effect

iv. Forward Chaining