

## ADA PRE-COURSE QUIZ

Multiple Choice. Select the letter that best answers the question.

- 1) For a *positively-skewed* distribution, what is the proper sequence?
  - a) mean < median < mode
  - b) mode < P50 < median
  - c) mode < median < mean
  - d) mean < mode < median
- 2) The Microsoft Excel program uses what discounting assumption in its NPV function?:
  - a) Continuous cashflows
  - b) Cashflows at period starts
  - c) Cashflows at period ends
  - d) Cashflows at midperiods
- 3) In constructing decision trees, it is permissible to place costs along branches and use these in back-solving the tree. This works because:
  - a) The delta property of expected value
  - b) The distributive property of means
  - c) All costs are included in the terminal node values
  - d) The stochastic dominance principle.
- 4) The *risk tolerance coefficient* used in an exponential utility function for risk policy represents:
  - a) A scaling factor for risk aversion
  - b) The maximum amount the company would risk on any one project
  - c) The company's net worth
  - d) The maximum amount the company is willing to pay to avoid risk.
- 5) Latin hypercube sampling is used for:
  - a) Collecting data samples, as in field studies
  - b) Reducing the time to convergence in Monte Carlo simulation
  - c) Method of correlating dependent chance events
  - d) Method of correlating independent chance events
- 6) The chronology of nodes in a decision tree should follow:
  - a) Decision nodes first, then chance events
  - b) The historical sequence of nature
  - c) The sequence of the project
  - d) Independent chance events first.
- 7)  $P(AB) \geq 0$  means
  - a) A and B are independent
  - b) A and B are not mutually exclusive
  - c) A and B are dependent
  - d) None of the above.
- 8) Which representation shows the importance of input variables contributing to outcome uncertainty?
  - a) Tornado chart
  - b) Influence diagram
  - c) Scatter diagram of input variables
  - d) Joint probability table.
- 9) Which is used to revise probabilities based upon imperfect information?
  - a) Influence diagram
  - b) Addition theorem
  - c) Stochastic inversion
  - d) Bayes' rule.
- 10) Which is the most popular measure of uncertainty?
  - a) Correlation coefficient
  - b) Variance
  - c) Standard deviation
  - d) Median.

For the first 10 questions, please circle your answers and hand-in this sheet.

Or you may e-mail answers to [john@maxvalue.com](mailto:john@maxvalue.com), subject "ADA Pre-Test" or similar.

Your "reward" for submitting answers is another 11 practice questions plus answers to all 21 questions.

- 1) a b c d
- 2) a b c d
- 3) a b c d
- 4) a b c d
- 5) a b c d
- 6) a b c d
- 7) a b c d
- 8) a b c d
- 9) a b c d
- 10) a b c d

Any comments?: \_\_\_\_\_

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