

QUIZ 1 (Tick appropriate answer)

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1. Simulation is a technique usually reserved for studying only the simplest and most straightforward of problems.
  - a. True
  - b. False
2. A simulation model is designed to arrive at a single specific numerical answer to a given problem.
  - a. True
  - b. False
3. Simulation typically requires a familiarity with statistics to evaluate the results.
  - a. True
  - b. False
4. The verification process involves making sure that
  - a. the model adequately represents the real-world system.
  - b. the model is internally consistent and logical.
  - c. the correct random numbers are used.
  - d. enough trial runs are simulated.
5. The validation process involves making sure that
  - a. the model adequately represents the real-world system.
  - b. the model is internally consistent and logical.
  - c. the correct random numbers are used.
  - d. enough trial runs are simulated.

6. Which of the following is an *advantage* of simulation?
- a. It allows time compression.
  - b. It is always relatively simple and inexpensive.
  - c. The results are usually transferable to other problems.
  - d. It will always find the optimal solution to a problem.
7. Which of the following is a *disadvantage* of simulation?
- a. It is inexpensive even for the most complex problem.
  - b. It always generates the optimal solution to a problem.
  - c. The results are usually transferable to other problems.
  - d. Managers must generate all of the conditions and constraints for solutions that they wish to examine.
8. A meteorologist was simulating the number of days that rain would occur in a month. The random number interval from 01 to 30 was used to indicate that rain occurred on a particular day, and the interval 31–00 indicated that rain did not occur. What is the probability that rain did occur?
- a. 0.30
  - b. 0.31
  - c. 1.00
  - d. 0.70
9. Simulation is best thought of as a technique to
- a. give concrete numerical answers.
  - b. increase understanding of a problem.
  - c. provide rapid solutions to relatively simple problems.
  - d. provide optimal solutions to complex problems.
10. When simulating the Monte Carlo experiment, the average simulated demand over the long run should approximate the
- a. real demand.
  - b. expected demand.
  - c. sample demand.
  - d. daily demand.