

QUIZ 1 (Tick appropriate answer)

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.