**OM 302 S23 W Quiz 4 (Optional) 5/14/23**

00:40:00

Your Last Name:


Your First Name:


Last 4 Digits of University's ID


When you click the" Next" button, the quiz will begin. You have 30 minutes to complete it. There is no "in and out" option. When you reach question # 30 please do not click "Next" unless you are ready to submit your quiz for grading. Good Luck!

**Question 1 of 30**

1. Which of the following steps are included in a simulation process?

* find the optimal solution
* none are
* define the problem
* construct a mathematical model
* all are
* identify decision variables

***(10 points) | \_\_\_***

**Question 2 of 30**

2. Simulations can produce better answers to complex problems than mathematical/analytical models:

* True
* False

***(10 points) | \_\_\_***

**Question 3 of 30**

3. Simulations should never be used before important decisions are to be made. Intuition is a better decision-making tool:

* False
* True

***(10 points) | \_\_\_***

**Question 4 of 30**

4. The University of Michigan school of thought should be used in service-based industries:

* True
* False

***(10 points) | \_\_\_***

**Question 5 of 30**

5. Simulations models are designed to compute a single, exact numerical answer to a given problem:

* True
* False

***(10 points) | \_\_\_***

**Question 6 of 30**

6. In solving inventory problems, a simulation is able to better handle probabilistic demand and inventory replenishment lead times:

* True
* False

***(10 points) | \_\_\_***

**Question 7 of 30**

7. Which of the following statements regarding simulations are true?

* none are true
* simulations can be physical or mathematical
* all are true
* simulations can be used in forecasting
* Monte Carlo simulations are chance based
* simulations need to reflect the real business environment

***(10 points) | \_\_\_***

**Question 8 of 30**

8. The key objective of a human resource strategy is to:

* none of these
* pay the lowest wages possible
* implement a "hire and fire" policy
* protect management from lawsuits
* all of these

***(10 points) | \_\_\_***

**Question 9 of 30**

9. The Hard Rock Cafe is an example of organization that hires the best qualified not the best available:

* False
* True

***(10 points) | \_\_\_***

**Question 10 of 30**

10. The Hard Rock Cafe has a very unique culture that would be a perfect fit for someone who likes discipline, order, and structure:

* False
* True

***(10 points) | \_\_\_***

**Question 11 of 30**

11. The Ritz Carlton organization is a perfect example of a "command and control" managerial style:

* False
* True

***(10 points) | \_\_\_***

**Question 12 of 30**

12. Even highly skilled workers can be replaced by technology. For example, accountants and lawyers can be replaced by artificial intelligence-based programs. One's flexibility, adaptability, and willingness to learn is the key to future employment:

* False
* True

***(10 points) | \_\_\_***

**Question 13 of 30**

13. Mr. Erlang is best known for his design of Disney's "Fast Pass" queue management model:

* True
* False

***(10 points) | \_\_\_***

**Question 14 of 30**

14. The two parts to a queuing system are: the queue and the service:

* True
* False

***(10 points) | \_\_\_***

**Question 15 of 30**

15. Customers who refuse to join a queue are "balking":

* False
* True

***(10 points) | \_\_\_***

**Question 16 of 30**

16. The most common discipline of waiting lines is:

* all of these
* First-Out/First-In
* Last-In/Last-Out
* Priority based
* none of these
* First-In/First-Out

***(10 points) | \_\_\_***

**Question 17 of 30**

17. The notation M/M/1 describes a two-channel model with Poisson arrivals and exponential service times:

* False
* True

***(10 points) | \_\_\_***

**Question 18 of 30**

18. The psychology of waiting is as important as the mathematics of waiting lines:

* True
* False

***(10 points) | \_\_\_***

**Question 19 of 30**

19. Customers who leave a queue are "balking":

* False
* True

***(10 points) | \_\_\_***

**Question 20 of 30**

20. Managers have a number of very good reasons to be concerned with waiting lines. Which of the following are these concerns?

* the possible loss of business should customers balk or reneg
* a possible loss of goodwill
* the cost to provide waiting space
* a possible loss of customer satisfaction
* all of these
* none of these

***(10 points) | \_\_\_***

**Question 21 of 30**

21. The main characteristics of waiting lines are:

* none of these
* patterns of arrivals
* queue discipline
* service rates
* population source (finite or infinite)
* all of these
* number of servers (channels)

***(10 points) | \_\_\_***

**Question 22 of 30**

22. The operating characteristics of the system measure the arrival rate:

* True
* False

***(10 points) | \_\_\_***

**Question 23 of 30**

23. A multiple-server system exists whenever there are two or more servers working independently inside the system:

* True
* False

***(10 points) | \_\_\_***

**Question 24 of 30**

24. Managers have to balance the costs of capacity and service costs with the costs incurred by waiting customers:

* False
* True

***(10 points) | \_\_\_***

**Question 25 of 30**

25. Simulations are descriptive techniques designed to evaluate the behavior of operating models under varying conditions:

* False
* True

***(10 points) | \_\_\_***

**Question 26 of 30**

26. Which of these are the main advantages of a simulation? It:

* compresses time so that managers can quickly discern long-term effects
* permits an analyst to experiment with system behavior
* lends itself to problems that are difficult or impossible to solve mathematically
* all of these
* is an excellent training tool

***(10 points) | \_\_\_***

**Question 27 of 30**

27. Simulations do not produce an optimum solution. Instead, they are good estimation tools:

* True
* False

***(10 points) | \_\_\_***

**Question 28 of 30**

28. Large scale simulations require significant computing power as well as a high level of mathematical competence:

* False
* True

***(10 points) | \_\_\_***

**Question 29 of 30**

29. All simulation programs use Random Number Generators:

* False
* True

***(10 points) | \_\_\_***

**Question 30 of 30**

30. The Harvard University HR model should be used in managing service based organizations:

* True
* False

***(10 points) | \_\_\_***

You have reached the end of the quiz. Click "Next"when you are ready to submit your quiz for grading.