**Quiz 4 (Optional) 302 F22**

01:00:00

Your Last Name:  


Your First Name:  


Your E-mail address:  


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

**Question 1 of 30**

The Michigan University HR model should be used in managing service-based organizations.

* True
* False

**Question 2 of 30**

The operating characteristics of the system measure the arrival rate:

* True
* False

**Question 3 of 30**

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

* True
* False

**Question 4 of 30**

One reason for using a simulation rather than an analytical model in solving inventory problems is that the simulations are able to handle probabilistic demand and inventory replenishment lead times.

* False
* True

**Question 5 of 30**

Simulation is a descriptive technique that enables decision makers to evaluate the behavior of an operating model under various conditions:

* False
* True

**Question 6 of 30**

The objective of a human resource strategy is to:

* Ensure that qualified staff is effectively and efficiently utilized
* None of these
* All of these
* Pay the lowest wages possible
* Implement a "hire and fire" policy

**Question 7 of 30**

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

* False
* True

**Question 8 of 30**

The notation M/M/1 describes a single channel model with Poisson arrivals and exponential service times.

* True
* False

**Question 9 of 30**

All simulation programs use Random Number Generators.

* True
* False

**Question 10 of 30**

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

* False
* True

**Question 11 of 30**

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

* True
* False

**Question 12 of 30**

Customers who leave a queue are "balking".

* True
* False

**Question 13 of 30**

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

* True
* False

**Question 14 of 30**

Which of these are the main advantages of simulations?

* None of these
* It is an excellent training tool.
* It permits an analyst to experiment with system behavior.
* It compresses time so that managers can quickly discern long-term effects.
* All of these
* It lends itself to problems that are difficult or impossible to solve mathematically.

**Question 15 of 30**

Simulation is capable of producing more appropriate answers to a complex problem than a mathematical/analytical model.

* True
* False

**Question 16 of 30**

Which of the following steps is not a part of a simulation process?

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

**Question 17 of 30**

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

* False
* True

**Question 18 of 30**

Simulations models are always designed to arrive at a single, exact numerical answer to a given problem.

* False
* True

**Question 19 of 30**

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

* False
* True

**Question 20 of 30**

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

* True
* False

**Question 21 of 30**

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

* False
* True

**Question 22 of 30**

Which of the following statements regarding simulation is true?

* None are true
* Simulations can be used in forecasting
* All are true
* Simulations need to reflect the real business environment
* Simulation can be physical or mathematical
* Monte Carlo simulation is chance based

**Question 23 of 30**

Simulations always require a very complex computer system.

* True
* False

**Question 24 of 30**

The main characteristics of waiting lines are:

* Service rates
* Population source (finite or infinite)
* All of these
* Queue discipline
* None of these
* Number of servers (channels)
* Patterns of arrivals

**Question 25 of 30**

Simulations should not be used before important decisions are to be made. They are too expensive:

* False
* True

**Question 26 of 30**

The most common discipline of waiting lines is:

* First-out/First-in
* First-in/First-out
* Last-in/Last-out
* None of these

**Question 27 of 30**

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

* True
* False

**Question 28 of 30**

Managers have a number of very good reasons to be concerned with waiting lines. Which ones:

* A possible loss of goodwill
* All of these
* A possible loss of customer satisfaction
* The cost to provide waiting space
* The possible loss of business should customers balk or reneg
* None of these

**Question 29 of 30**

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

* False
* True

**Question 30 of 30**

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

* True
* False