# OM 305 S23

 **Quiz 1**

**Study Guide as of 2/4/23**

00:45:00

Last Name


First Name


Email address


School ID (Last four digits):


Click the next button to begin. You have 45 minutes to complete this task. When you are at the question 40 do not click "Next" unless you are ready to submit your answers for grading. You can submit your answers only one time. Good Luck!

**Question 1 of 40**

**Which of the following statements (is) are correct regarding the “IBM Operation During WWII”?**

* IBM was a very moral and ethical company
* The actions of IBM were criminal
* IBM was involved only in agriculture
* none of these
* all of these

**Question 2 of 40**

**Which of the following statements (is) are correct regarding the concept of the: "Statistical Inference Tools"?**

* these tools help reach a conclusion about given population from which a sample is taken
* these tools help reach a conclusion about a given sample when there is no information about the corresponding population
* these are deterministic analytical tools
* none of these
* all of these

**Question 3 of 40**

**Which of the following statements (is) are correct regarding the concept of the: "Coefficient of Variation"?**

* it is used to measure the relative variations of data
* it is used to identify outliers
* it is always shown as an integer
* none of these
* all of these

**Question 4 of 40**

**Which of the following statements (is) are correct regarding the concept of the: “Reliability of Consumer Research"?**

* this type of research is very reliable
* this type of research will yield perfect information
* this type of research is unbiased
* none of these
* all of these

**Question 5 of 40**

**Which of the following statements (is) are correct regarding the concept of a: "Parameter"?**

* it is an element of a population
* it is an element of a sample
* it is the total length of a fence
* none of these
* all of these

**Question 6 of 40**

**Which of the following statements (is) are correct regarding the concept of a: "Dependent Variable"?**

* its value depends on the values of other variables
* its value does not depend on the values of other variables
* it will always equal to zero
* none of these
* all of these

**Question 7 of 40**

**Which of the following statements (is) are correct regarding the concept of a: "Personal Bias in Business"?**

* it is desirable and unavoidable
* it is undesirable and unavoidable
* it is avoidable
* it does not apply to me
* none of these
* all of these

**Question 8 of 40**

**Which of the following statements (is) are correct regarding the concept of an: "Independent Variable"?**

* its value depends on values of other variables
* it will never vary
* it will always equal to zero
* none of these
* all of these

**Question 9 of 40**

**Which of the following statements (is) are correct regarding the: “Standard Deviation”? It:**

* assumes that probabilities of occurrences are equal
* assumes that probabilities of occurrences are not equal
* assumes that the probabilities of occurrences are equal to zero
* is the distance from the mean on the x-axis.
* none of these
* all of these.

**Question 10 of 40**

**Which of the following statements (is) are correct regarding the concept of the: “Standardized Normal Distribution”? It:**

* maximizes the probability under the curve
* has the mean = 0 and the Standard Deviation = 1
* has the mean = 1 and the standard deviation = 0
* none of these
* all of the above

**Question 11 of 40**

**Which of the following statements (is) are correct regarding the concept of: "Making Decisions with Uncertainty"?**

* these are probabilistic decisions
* these are deterministic decisions
* decisions cannot be made under such circumstances
* you should try to search for perfect information first
* none of these
* all of these

**Question 12 of 40**

**Which of the following statements (is) are correct regarding the concept of a: "Population Census"?**

* it requires that data is collected from every parameter
* it is less expensive in comparison to sampling
* by law, to save money, census can be replaced by sampling
* none of these
* all of these

**Question 13 of 40**

**Which of the following statements (is) are correct regarding the concept of: "Quantitative Data"?**

* values are inherently numerical
* values are inherently categorical
* values are ordinal
* values do not matter
* none of these
* all of these

**Question 14 of 40**

**Which of the following statements (is) are correct regarding the concept of: “Axioms”?**

* these are the assumptions that are necessary in data analysis
* they are only used to compute the EMVs
* they are only used when risks are known
* none of these
* all of these

**Question 15 of 40**

**Which of the following statements (is) are correct regarding the concept of the: “Empirical Rule?” It states that:**

* 98.9% of data falls within 2 standard deviations from the mean
* 99.7% of data falls within 2 standard deviations from the mean
* that 69.0% of data falls within 2 standard deviations from the mean
* none of these
* all of these

**Question 16 of 40**

**Which of the following statements (is) are correct regarding the concept of the: " Non-statistical Sampling Techniques"? It could be one’s:**

*  judgement
*  guess
* an opinion
* none of these
* all of these

**Question 17 of 40**

**Which of the following statements (is) are correct regarding the concept of the: “Exponential Distribution”? It:**

* is the amount of time between two points in time
* can be any random number
* is an element of a sample
* is the same as "statistics"
* none of these
* all of these

**Question 18 of 40**

**Which of the following statements (is) are correct regarding the concept of the: "Qualitative Data"?**

* values are inherently categorical
* values are inherently numerical values are inherently ordinal
* values are always of the highest quality
* none of these
* all of these

**Question 19 of 40**

**Which of the following are the characteristics of the: “Normal Distribution?” It is:**

* applicable to situations that are “normal”
* unimodal
* symmetrical
* asymptotic
* none of these
* all of these

**Question 20 of 40**

**Which of the following statements (is) are correct regarding the concept of an: “Outlier”? It:**

* can be viewed as a compromise between the max and min numbers
* is an unusually small or unusually large number
* is a synonym for the corresponding mean
* none of these
* all of these

**Question 21 of 40**

**Which of the following statements (is) are correct regarding the concept of the: “Poisson Distribution”? It is:**

* a continuous probability distribution
* uniform probability distribution
* normal probability distribution
* none of these
* all of these

**Question 22 of 40**

**Which of the following statements (is) are correct regarding the concept of the: "Cross-sectional data series”? It is:**

* data collected at the same time at different locations
* data collected at different times at the same location
* not very useful, one’s intuition will suffice
* none of these
* all of these

**Question 23 of 40**

**In “Permutations” the order of outputs is important?**

True

False

**Question 24 of 40**

**In “Combinations” the order is important:**

True

False

**Question 25 of 40**

**A “Binomial Probability Distribution” has at least two potential outcomes:**

True

False

**Question 26 of 40**

**The Uniform Probability Distribution” is continuous:**

True

False

**Question 27 of 40**

**The “Bayes’ Method” is an extension of the conditional law of probabilities:**

True

False

**Question 28 of 40**

**The term "Business Statistics" refers to a set of tools and techniques used to collect and analyze data in a business environment:**

True

False

**Question 29 of 40**

**The "Cumulative Relative Frequency Distribution" is a running total of the proportions of observations within a given array of numbers:**

True

False

**Question 30 of 40**

**“Arrival rate” the frequency at which customers arrive at a waiting line according to a probability distribution. It is most frequently described by a Poisson distribution:**

True

False

**Question 31 of 40**

**“Poisson Arrival Rate” is an exponential time between arrivals:**

True

False

**Question 32 of 40**

**“Basic Single Server Model” Poisson arrival rate, Exponential service times, FCFS queue discipline, Infinite queue length, Infinite calling population:**

True

False

**Question 33 of 40**

**“Utilization rate”: the probability the server is busy, and the customer must wait:**

True

False

**Question 34 of 40**

**“Balking” when customers do not join the queue because it is too long:**

True

False

**Question 35 of 40**

**“Little’s Law” a fundamental law that relates the cost of waiting by customers to the cost of serving of customers:**

True

False

**Question 36 of 40**

**“Systems Structure” is waiting and serving phases:**

True

False

**Question 37 of 40**

**“Arriving patterns” describes the time between customer arrivals:**

True

False

**Question 38 of 40**

**“Psychology of waiting” is as important as the mathematics of waiting:**

True

False

**Question 39 of 40**

**“Jockeying” when customers switch queues :**

True

False

**Question 40 of 40**

**“Queue” a waiting line system that consists of arrival, servers, and waiting line structure:**

True

False

**You have reached the end of this answer sheet. Please click next to submit your work for grading.**