**BUS 204 S23 Quiz 3**

**as of 4/24/23**

**Answer Key**

00:30:00

Last Name :


First Name


E-mail Address:


ID (last four digits of your university ID):


Please provide your information as requested below. You have 30 minutes to enter your answers. When ready, click the "next" button to start your quiz. No "in and out" privileges. Click "back" if you want to review your answers. Do not click "next", when you are on the last page of the quiz, unless you are ready to submit your answers. Good Luck !!!

**Question 1 of 30**

Which of the following statements is true with regard to the concept of Markov Chains?

* This type of analysis allows us to predict the future outcomes using the predetermined state probabilities and the Matrix of Transition Probabilities (0 points)
* It is a mathematical system that experiences transitions from one state to another according the certain probability rules. (0 points)
* There is a finite number of possible future states. (0 points)
* This method can be applied to solving non-linear problems (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 2 of 30**

Delphi Method allows experts, who may be in different places, make forecasts make forecasts based on an individual judgement:

* True (10 points)
* False (0 points)

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

Correct

Incorrect

**Question 3 of 30**

Forecasting Error is the sum of the actual and forecasted outcomes:

* True (0 points)
* False (10 points)

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

Correct

Incorrect

**Question 4 of 30**

Which of the following is true with regard to the concept of MAD?

* It is a technique used to determine the accuracy of a forecasting model (10 points)
* it measures the average magnitude of the forecast error (10 points)
* It is one of many psychological disorders (0 points)
* It is an acronym for Mothers Against Driving (0 points)
* all of these (0 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 5 of 30**

Which of the following is true with regard to the concept of a Multiple Regression model?

* a regression model has more than one independent variable (0 points)
* a simple regression model converts to a multiple regression model when more independent variables are added (0 points)
* it always has one dependent variable (0 points)
* It can only be used when relationships between variables are linear (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 6 of 30**

Which of the following is true with regard to the concept of Scatter Plots?

* they are two-dimensions, time-based plots showing the values for the joint occurrence of two variables (0 points)
* the scatter plots may be used to graphically represent the relationship between two variables (0 points)
* they are also known as scatter diagrams (0 points)
* they are shown on the x-y charts (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 7 of 30**

Weighted Moving Average is a moving average forecasting method that places the same weights on past values:

* True (0 points)
* False (10 points)

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

Correct

Incorrect

**Question 8 of 30**

Which of the following is true with regard to the concept of Consumer Market Surveys?

* they are seldom reliable (0 points)
* customers are not rational (0 points)
* they need to see the product first before they can react (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 9 of 30**

Forecasting software is just a tool no matter how sophisticated it is. Ultimately, for now, human make decisions:

* True (10 points)
* False (0 points)

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

Correct

Incorrect

**Question 10 of 30**

The perfect forecasting model does exist:

* True (0 points)
* False (10 points)

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

Correct

Incorrect

**Question 11 of 30**

Which of the following is true with regards to the concept of Least-Square Criterion?

* it is the criterion for determining a regression line that minimizes the sum of squared residuals (0 points)
* it is the procedure used in trend projections and regression analysis to minimize the squared distance between the estimated straight line and the observed values. (0 points)
* assumes that the relationship between variables is linear (0 points)
* can only be used with the sample that is being analyzed (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 12 of 30**

Which of the following is true with regards to the concept of Correlation Coefficient?

* a quantitative measure of the strength of the linear relationship between two variables (10 points)
* it ranges from -1 to +1 (10 points)
* a correlation of -1 indicates a perfect positive linear relationship (0 points)
* it has a symbol of "r" (10 points)
* all of these (0 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 13 of 30**

Time-series forecasting models are based on historical data:

* True (10 points)
* False (0 points)

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

Correct

Incorrect

**Question 14 of 30**

Which of the following is true with regards to the concept of a Moving Average?

* it smooths out variations when forecasting demands are fairly steady (0 points)
* they do not detect trends (0 points)
* they are the successive averages of n consecutive values in time-series (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 15 of 30**

Quantitative Models are based on experience and acumen. They are not based on numerical values:

* True (0 points)
* False (10 points)

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

Correct

Incorrect

**Question 16 of 30**

Which of the following is true with regard to the concept of Regression Analysis?

* it is a forecasting procedure that uses the least squares approach (0 points)
* it enables predictive analysis based on the straight-line extrapolation (0 points)
* can have one or more independent variables (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 17 of 30**

Bias is a technique for determining the accuracy of a forecasting model by measuring the average error and its direction:

* True (10 points)
* False (0 points)

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

Correct

Incorrect

**Question 18 of 30**

Which of the following is true with regard to the concept of Causal Models?

* they are approximations of actual systems using either a physical or a mathematical representation (0 points)
* they incorporate factors that influence what is being forecasted (0 points)
* they are models that show a cause-effect relationship between variables (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 19 of 30**

Which of the following is true with regard to the concept of the Jury of Executive Opinion?

* this method captures the opinions of a small group of high-level managers (10 points)
* it is a superior forecasting technique (0 points)
* it can lead to a "group think" (10 points)
* all of these (0 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 20 of 30**

Forecasting period is the number of future periods covered by a forecast. It is sometimes referred to as a forecast lead time:

* True (0 points)
* False (10 points)

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

Correct

Incorrect

**Question 21 of 30**

Forecasting horizon is the unit of time for which forecasts are made:

* True (0 points)
* False (10 points)

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

Correct

Incorrect

**Question 22 of 30**

Which of the following is true with regard to the concept a Linear Trend?

* it is a long-term increase or decrease in a time series in which the rate of change is relatively constant (0 points)
* it is a trend line with time as the independent variable (0 points)
* typically, it measures the behavior of one variable overtime (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 23 of 30**

Which of the following is true with regard to the concept of Cyclical Components?

* it is a wave-like pattern within the time-series that repeats itself throughout the time series (10 points)
* it is used in economic and business cycle analysis (10 points)
* the patterns will differ from industry to industry (10 points)
* it is shown as a straight line (0 points)
* it has a recurrence period of more than one year (10 points)
* all of these (0 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 24 of 30**

Which of the following is true with regard to the concept of Random Components?

* they are changes in time-series data that are unpredictable and cannot be associated with a trend, seasonal, or cyclical components (10 points)
* from the aggregate perspective that are the same as the cyclical component (0 points)
* they can be accounted for with better forecasting techniques (0 points)
* all of these (0 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 25 of 30**

The base value is the value to which all other values in the time-series are compared (indexed):

* True (10 points)
* False (0 points)

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

Correct

Incorrect

**Question 26 of 30**

Which of the following is true with regard to the concept of Exponential Smoothing?

* it is a time series and forecasting technique that produces an exponentially weighted moving average (0 points)
* each smoothing calculation or forecast is dependent on all previously observed values (0 points)
* the smoothing constant is called alpha (0 points)
* the damping constant is called beta (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 27 of 30**

Which of the following is true with regard to the concept of a Coefficient of Determination?

* it is the portion of the total variation in the dependent variable that is explained by its relationship with the independent variable (10 points)
* it is called "R squared" (10 points)
* its value will be between -1 and+1 (0 points)
* its symbol is "r" (0 points)
* all of these (0 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 28 of 30**

A residual is the difference between the actual value of the dependent variable and the value predicted by the regression model:

* True (10 points)
* False (0 points)

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

Correct

Incorrect

**Question 29 of 30**

Which of the following is true with regard to the concept the Base Period Index? It is:

*  set to the value of 100 (0 points)
* used to convert values measured at different times into more directly comparable values (0 points)
* all of these (10 points)
* none of these (0 points)

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

Correct

Incorrect

**Question 30 of 30**

Aggregate Price Index is an index that is used to measure the rate change from a base period for a group of two or more items:

* True (10 points)
* False (0 points)

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

Correct

Incorrect

You have reached the end of the quiz. Click next to see your score.