Started on	Wednesday, 13 October 2021, 3:04 PM
State	Finished
Completed on	Wednesday, 13 October 2021, 3:49 PM
Time taken	45 mins 1 sec
Grade	**24.00** out of 35.00 (**69**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Along with being unbiased, which of the following is another desired quality of a good point estimator?

Select one:

- a. large expected value
- b. small average
- c. large mean square error
- d. minimum variance ✔

The correct answer is: minimum variance

Question **2**

Correct

Mark 1.00 out of 1.00

Which of these is NOT a correct null hypothesis?

Select one:

- a. $H_0: \mu_1 < \mu_2$
- b. $H_0: \mu_1 - \mu_2 = 0$ ✔
- c. $H_0: \mu_1 = \mu_2$

The correct answers are: $H_0: \mu_1 - \mu_2 = 0$, $H_0: \mu_1 < \mu_2$

Question **3**

Correct

Mark 1.00 out of 1.00

whaich of the follwing is not true about normal distrubtion

Select one:

- a. the normal curve is skewed ✔
- b. the normal curve is bell shaped
- c. the normal curve is unimodal
- d. mean , median and mode of a normal distribution are equal

The correct answer is: the normal curve is skewed

Question **4**

Correct

Mark 1.00 out of 1.00

Type 1 Error means

Select one:

- a. The probability of rejecting a false null hypothesis
- b. The probability of rejecting a true null hypothesis ✔
- c. The beta error
- d. The probability of not rejecting a false null hypothesis

The correct answer is: The probability of rejecting a true null hypothesis

Question **5**

Correct

Mark 1.00 out of 1.00

The sum of the the deviations about mean is

Select one:

- a. None of thses
- b. zero ✔
- c. Minimum
- d. Maximum

The correct answer is: zero

Question **6**

Correct

Mark 1.00 out of 1.00

The extent or the degree to which data tend to spread around _____ is called the dispersion or variation of data.

Select one:

- a. Average ✔
- b. Percentiles
- c. Range
- d. Quartiles

The correct answer is: Average

Question **7**

Correct

Mark 1.00 out of 1.00

Correlation studies cicrcular realtionship between two variables

Select one:

- True
- False ✔

The correct answer is 'False'.

Question **8**

Correct

Mark 1.00 out of 1.00

The value of R squared ranges from

Select one:

- a. not necessarily always be positive i.e. it can be negative also
- b. Zero to 1 ✔
- c. Zero to Infinity
- d. <0 but can never be >1

The correct answer is: Zero to 1

Question **9**

Incorrect

Mark 0.00 out of 1.00

What are panel data?

Select one:

- a. data measured at one point in time
- b. data containing units measured at different time points ✖
- c. data containing skewed variable distributions
- d. data where each unit is measured at more than one time point

The correct answer is: data where each unit is measured at more than one time point

Question **10**

Incorrect

Mark 0.00 out of 1.00

Which of the following statements is correct?

Select one:

- a. an interval estimate is an estimate of the range of possible values for a population parameter
- b. an interval estimate describes a range of values that is likely not to include the actual population parameter
- c. none of the statements a are correct
- d. an interval estimate is an estimate of the range for a sample statistic ✖

The correct answer is: an interval estimate is an estimate of the range of possible values for a population parameter

Question **11**

Correct

Mark 1.00 out of 1.00

You are interested in whether women who participated in a company-based mentor program were satisfied with their experience. You find a short questionnaire that asks women to rate their satisfaction (on a 4-point Likert scale) with eight different areas of mentoring (e.g., giving advice, networking, and providing emotional support). The scoring system averages responses across all eight areas. This questionnaire uses which scale of measurement?

Select one:

- a. Ordinal ✔
- b. Ratio
- c. Nominal
- d. Interval

The correct answer is: Ordinal

Question **12**

Incorrect

Mark 0.00 out of 1.00

Imagine a researcher is probing the inflation in Indian Economy from 2019-20 to 2020-21 (Two Observations) considering the following variables

1. Inflation - Dependent Variable
2. Money Supply (M3) - Independent Variable
3. Gross Domestic Product (GDP) - Independent Variable
4. Imports (Independent Variable)
5. Price of Petrol (Independent Variable)

Here which assumption of Classical Linear Regression Model is violated

Select one:

- a. The number of observations - n must be greater than the number of parameters to be estimated
- b. No Auto Correlation
- c. No Perfect Multicollinearity ✖
- d. Homoscedasticity

The correct answer is: The number of observations - n must be greater than the number of parameters to be estimated

Question **13**

Incorrect

Mark 0.00 out of 1.00

The following Regression result is obtained after evaluating the employment potential of Engineering students in Nirma. Find out this is a case of what type of regression?

$Y = B_1 + B_2 X1 + B_3 X2 + B_4 X3 + u$

Y = Employability Skill of Nirma Engineering Students

X1 = Technical Skill of Domain Specialisation

X2 = Communication Skill

X3 = Managerial Capabilities

u = Stochastic Random Variable

Select one:

- a. Simple Regression
- b. Polynomial Regression
- c. Multiple Regression
- d. Population Regression Function ✖

The correct answer is: Multiple Regression

Question **14**

Correct

Mark 1.00 out of 1.00

What is the difference between data measured on an interval scale and data measured on a ratio scale?

Select one:

- a. A ratio scale has a true zero point, so zero on the scale corresponds to zero of the concept being measured. ✔
- b. An interval scale has a true zero point, so zero on the scale corresponds to zero of the concept being measured.
- c. A ratio scale puts scores into categories, while an interval scale measures on a continuous scale.
- d. A ratio scale has equal intervals between the points on the scale, whereas an interval scale does not.

The correct answer is: A ratio scale has a true zero point, so zero on the scale corresponds to zero of the concept being measured.

Question **15**

Correct

Mark 1.00 out of 1.00

What is Gauss-Markov Theorem?

Select one:

- a. Gauss Markov Theorem supports the Keneysian Consumption Function
- b. Gauss Markov Theorem supports the Type I Error but do not support Type II Error
- c. Given the assumptions of Classical Linear Regression Model (CLRM),, the least square estimators,in the class of unbiashed linear estimators, have minimum variance, i.e. they are BLUE - Best Linear Unbiased Estimators ✔
- d. Gauss is a strong supporter of Kenysian Consumption Function but Markov is a strong supporter of Classical Linear Regression Function

The correct answer is: Given the assumptions of Classical Linear Regression Model (CLRM),, the least square estimators,in the class of unbiashed linear estimators, have minimum variance, i.e. they are BLUE - Best Linear Unbiased Estimators

Question **16**

Correct

Mark 1.00 out of 1.00

School administrators sponsor a study of bullying on elementary school playgrounds. Trained observers record the number of incidents of aggression that occur during consecutive 10-minute periods. Aggression is measured on which of the following scales of measurement

Select one:

- a. Ordinal
- b. Nominal
- c. Ratio ✔
- d. Interval

The correct answer is: Ratio

Question **17**

Correct

Mark 1.00 out of 1.00

Which of these is an example of a test statistic?

Select one:

- a. the population mean
- b. a *z*-score ✔
- c. the sample mean

The correct answer is: a *z*-score

Question **18**

Correct

Mark 1.00 out of 1.00

Which of the following does NOT contributes to the Error Term

Select one:

- a. Poor Proxy Variables and the Principle of Parsimony
- b. Linear in the variable but not in the parameter ✔
- c. Intrinsic Randomness in Human Behavior
- d. Vagueness of Theory and unavailability of data
- e. Improper Functional Form and Measurement Error

The correct answer is: Linear in the variable but not in the parameter

Question **19**

Correct

Mark 1.00 out of 1.00

What is Skewness of Data refers to?

Select one:

- a. Sample mean distributed over the population mean in a given series
- b. How far the population mean is distributed compared to that of sample mean
- c. The term 'skewness' is used to mean the absence of symmetry from the mean of the dataset. It is characteristic of the deviation from the mean, to be greater on one side than the other, i.e. attribute of the distribution having one tail heavier than the other. Skewness is used to indicate the shape of the distribution of data. ✔
- d. Skewness refers to the standard error in the distribution of data

The correct answer is: The term 'skewness' is used to mean the absence of symmetry from the mean of the dataset. It is characteristic of the deviation from the mean, to be greater on one side than the other, i.e. attribute of the distribution having one tail heavier than the other. Skewness is used to indicate the shape of the distribution of data.

Question **20**

Incorrect

Mark 0.00 out of 1.00

What does the following symbols shows?

cov (ui, uj |Xi, Xj) = E{[ui − E(ui)] | Xi}{[uj − E(uj)] | Xj} = E(ui |Xi)(uj | Xj) (why?) = 0

Select one:

- a. There is no covariance in the successive independent variables in the case of Multiple Regression
- b. No Autocorrelation in time series data with successive disturbances
- c. Autocorrelation is must for the validity of any regression function
- d. No autocorrelation in the multiple dependent variable models but not in single dependent variable case ✖

The correct answer is: No Autocorrelation in time series data with successive disturbances

Question **21**

Correct

Mark 1.00 out of 1.00

What is the difference between Mean, Median and Mode

Select one:

- a. All are one and same
- b. Mode is the middle value Median is the average of an observation and Mean is the most repeated value in the group
- c. Mean is the average of the observations, Median is the middle value when arranged in ascending order and mode is the more repeated value in the group ✔
- d. While Mean is the middle one mode is the average and median is the mostly repeated value

The correct answer is: Mean is the average of the observations, Median is the middle value when arranged in ascending order and mode is the more repeated value in the group

Question **22**

Incorrect

Mark 0.00 out of 1.00

What does the following equation shows?

var (ui |Xi) = E[ui − E(ui |Xi)]2

Select one:

- a. There is a constant variance in the independent variables, regardless of the dependent variables but not in the error terms ✖
- b. Data is inadequate
- c. The variance of the error or disturbance term is the same regardless of the value of X - there exist Homoscedasticity or constant variance which is one of the assumptions of CLRM
- d. The constant variance arises only if the data is time series data but not in cross sectional data

The correct answer is: The variance of the error or disturbance term is the same regardless of the value of X - there exist Homoscedasticity or constant variance which is one of the assumptions of CLRM

Question **23**

Incorrect

Mark 0.00 out of 1.00

In a simple consumption and income model given below which variables are stochastic in nature

$$Y = B_1 + B_2 X + u$$

Where in Y is the dependent variable of Consumption and X is the income, B_1 and B_2 are coefficients and u is the error term

Select one:

- a. Income(X) and Consumption (Y)
- b. X (Income)
- c. Consumption (Y) and the Error Term (u)
- d. Y (Consumption)
- e. Error Term - u ✖

The correct answer is: Consumption (Y) and the Error Term (u)

Question **24**

Correct

Mark 1.00 out of 1.00

What does the following shows

E(ui |Xi) = 0

Select one:

- a. Zero Variance in the estimated errors
- b. Zero Variance in the Dependent Variable Y with reference to Independent Variable X
- c. Zero Tolerance level in the case of Multicollinearity
- d. The Zero Mean Value of Disturbance - one of the TEN assumptions of Classical Linear Regression Models ✔

The correct answer is: The Zero Mean Value of Disturbance - one of the TEN assumptions of Classical Linear Regression Models

Question **25**

Correct

Mark 1.00 out of 1.00

$\mu \pm 1\sigma$ covers _____of the items in a data set.

Select one:

- a. 86%
- b. 99.73%
- c. 95%
- d. 68% ✔

The correct answer is: 68%

Question **26**

Incorrect

Mark 0.00 out of 1.00

The sample mean is called:

Select one:

- a. Continuous variable
- b. Statistic
- c. Parameter ✖
- d. Discrete variable

The correct answer is: Statistic

Question **27**

Correct

Mark 1.00 out of 1.00

The null and alternative hypotheses are written about

Select one:

- a. a population parameter ✔
- b. sample statistic
- c. sample data

The correct answer is: a population parameter

Question **28**

Correct

Mark 1.00 out of 1.00

What is the major difference between Correlation and Regression

Select one:

- a. While Correlation explains the direction and strength of relationship between two variables Regression explains the amount of changes in dependent variable based on the changes of one or more independent variables ✔
- b. While the term stochastic variable plays no role in correlation it is very important in regression
- c. Regression cannot predict future trends but correlation can predict future trends
- d. Both are more or less the same

The correct answer is: While Correlation explains the direction and strength of relationship between two variables Regression explains the amount of changes in dependent variable based on the changes of one or more independent variables

Question **29**

Incorrect

Mark 0.00 out of 1.00

Difference between R square value and F statistic probabilistic value in regression output is

Select one:

- a. R square detect mistakes in selection of variable but F statistic prob value trace mistakes in the estimator
- b. While R square explains g\Goodness of Fit of the Model within sample F statistics probability value shows Goodness of Fit of the Model in population
- c. While F statistics probability value shows the significance of individual variable R squared value shows the significance of all the variable taken together ✖
- d. R square relates to Cross sectional data but F statistic prob value relate to time series data

The correct answer is: While R square explains g\Goodness of Fit of the Model within sample F statistics probability value shows Goodness of Fit of the Model in population

Question **30**

Incorrect

Mark 0.00 out of 1.00

X is a random normal variable, with mean μ and variance Invalid <msup> element. The "standardised form" of X is $Z = (X-\mu)/\sigma$.
What are the mean and variance, respectively, of Z ?

Select one:

- a. 0, 1
- b. 1, 0 ✖
- c. 1, 1
- d. 0, 2

The correct answer is: 0, 1

Question **31**

Correct

Mark 1.00 out of 1.00

What is Hypothesis

Select one:

- a. Hypothesis is a statement to be proved or disproved with statistical inference ✔
- b. Hypothesis is not necessary at all for validity purpose
- c. Hypothesis is the last step in Econometric Model
- d. It is a wonderful term in Econometrics which deals with descriptive statistics

The correct answer is: Hypothesis is a statement to be proved or disproved with statistical inference

Question **32**

Incorrect

Mark 0.00 out of 1.00

What do you mean by the assumption of CLRM that the X values are FIXED

Select one:

- a. The X values are stochastic random in nature while the Y is a non stochastic variable
- b. Values taken by X are fixed in repeated samples or X values are independent of Error Term
- c. It refers to fixed quantity of X values with reference to the fixed quantity of Y value in a situation where the error term is stochastic random value ✖
- d. The X and U are non stochastic but Y is Stochastic

The correct answer is: Values taken by X are fixed in repeated samples or X values are independent of Error Term

Question **33**

Correct

Mark 1.00 out of 1.00

The shape of the normal curve depends on its _____

Select one:

- a. Mean deviation
- b. Correlation
- c. Quartile deviation
- d. Standard deviation ✔

The correct answer is: Standard deviation

Question **34**

Correct

Mark 1.00 out of 1.00

p value test

Select one:

- a. the significance of B coefficient
- b. the null hypothesis that B coefficient is always equal to zero
- c. The tolerance level of multicollinearity
- d. the null hypothesis that B Coefficient is equal to zero ✔

The correct answer is: the null hypothesis that B Coefficient is equal to zero

Question **35**

Correct

Mark 1.00 out of 1.00

The Marginal Cost Function can be represented in the following regression function.

$$Y = B_1 + B_2 X + B_3 X^2$$

Here Y is Marginal Cost and X is output. This is the case of which regression function

Select one:

- a. Polynomial Regression Function ✔
- b. Multiple Regression Function
- c. Population Regression Function
- d. Simple Regression Function

The correct answer is: Polynomial Regression Function

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INNOVATIVE ASSIGNMENT - INTRODUCTION TO ECONOMETRICS ►

Started on	Wednesday, 13 October 2021, 3:02 PM
State	Finished
Completed on	Wednesday, 13 October 2021, 3:46 PM
Time taken	44 mins 21 secs
Grade	**23.00** out of 35.00 (**66**%)

Question **1**

Correct

Mark 1.00 out of 1.00

The population mean μ is called:

Select one:

- a. Statistic
- b. Parameter ✔
- c. Continuous variable
- d. Discrete variable

The correct answer is: Parameter

Question **2**

Correct

Mark 1.00 out of 1.00

In Normal distribution, the highest value of ordinate occurs at _____

Select one:

- a. Extremes
- b. Same value occurs at all points
- c. Variance
- d. Mean ✔

The correct answer is: Mean

Question **3**

Correct

Mark 1.00 out of 1.00

Correlation studies cicrcular realtionship between two variables

Select one:

- True
- False ✔

The correct answer is 'False'.

Question **4**

Incorrect

Mark 0.00 out of 1.00

Heteroscedasticity means

Select one:

- a. The dependent variable does not change at all
- b. The probability distribution of error terms follows normal distribution with constant variance ✖
- c. The Independent variables spread but not the error terms
- d. If the the conditional variance of Y population varies with X it is a situation of Heteroscedasticity or unequal spread or variance

The correct answer is: If the the conditional variance of Y population varies with X it is a situation of Heteroscedasticity or unequal spread or variance

Question **5**

Incorrect

Mark 0.00 out of 1.00

What do you mean by the assumption of CLRM that the X values are FIXED

Select one:

- a. The X and U are non stochastic but Y is Stochastic
- b. It refers to fixed quantity of X values with reference to the fixed quantity of Y value in a situation where the error term is stochastic random value ✖
- c. The X values are stochastic random in nature while the Y is a non stochastic variable
- d. Values taken by X are fixed in repeated samples or X values are independent of Error Term

The correct answer is: Values taken by X are fixed in repeated samples or X values are independent of Error Term

Question **6**

Correct

Mark 1.00 out of 1.00

You are interested in whether women who participated in a company-based mentor program were satisfied with their experience. You find a short questionnaire that asks women to rate their satisfaction (on a 4-point Likert scale) with eight different areas of mentoring (e.g., giving advice, networking, and providing emotional support). The scoring system averages responses across all eight areas. This questionnaire uses which scale of measurement?

Select one:

- a. Interval
- b. Ratio
- c. Nominal
- d. Ordinal ✔

The correct answer is: Ordinal

Question **7**

Correct

Mark 1.00 out of 1.00

whaich of the follwing is true about normal distrubtion

Select one:

- a. mean , median and mode of a normal distribution are not equal
- b. the parameters of normal curve are sample mean and sample varaince
- c. the normal curve is symmetrical ✔
- d. the normal curve is skewed

The correct answer is: the normal curve is symmetrical

Question **8**

Correct

Mark 1.00 out of 1.00

School administrators sponsor a study of bullying on elementary school playgrounds. Trained observers record the number of incidents of aggression that occur during consecutive 10-minute periods. Aggression is measured on which of the following scales of measurement

Select one:

- a. Ordinal
- b. Interval
- c. Nominal
- d. Ratio ✔

The correct answer is: Ratio

Question **9**

Incorrect

Mark 0.00 out of 1.00

What does the following symbols shows?

cov (ui, uj |Xi, Xj) = E{[ui – E(ui)] | Xi}{[uj – E(uj)] | Xj} = E(ui |Xi)(uj | Xj) (why?) = 0

Select one:

- a. Autocorrelation is must for the validity of any regression function
- b. No Autocorrelation in time series data with successive disturbances
- c. No autocorrelation in the multiple dependent variable models but not in single dependent variable case ✖
- d. There is no covariance in the successive independent variables in the case of Multiple Regression

The correct answer is: No Autocorrelation in time series data with successive disturbances

Question **10**

Correct

Mark 1.00 out of 1.00

X is a random normal variable, with mean μ and variance Invalid <msup> element. The “standardised form” of X is $Z = (X–\mu) /\sigma$.
What are the mean and variance, respectively, of Z ?

Select one:

- a. 0, 2
- b. 0, 1 ✔
- c. 1, 0
- d. 1, 1

The correct answer is: 0, 1

Question **11**

Correct

Mark 1.00 out of 1.00

What is the Keynesian Consumption Law?

Select one:

- a. When Income increases consumption increases but not necessarily in the same rate ✔
- b. Both Consumption and Income are functions of demand
- c. Consumption is the function of income and nothing else
- d. While consumption is the function of income, income is the function of economy as a whole

The correct answer is: When Income increases consumption increases but not necessarily in the same rate

Question **12**

Correct

Mark 1.00 out of 1.00

What is your interpretation of constant term in the regression?

Select one:

- a. Constant term is non stochastic
- b. Constant Term captures the unexplained variables in the regression
- c. Constant term in regression explains the intercept concept ✔
- d. Constant term is fixed and dropping of any one explanatory variables does not effect the relationship at all
- e. Constant Term is not compulsory

The correct answer is: Constant term in regression explains the intercept concept

Question **13**

Correct

Mark 1.00 out of 1.00

Which of the following statements are correct?

Select one:

- a. all of the above statements are correct
- b. a point estimate is an unbiased estimator if its standard deviation is the same as the actual value of the population standard deviation
- c. a point estimate is an estimate of the range of a population parameter
- d. a point estimate is a single value estimate of the value of a population parameter ✔

The correct answer is: a point estimate is a single value estimate of the value of a population parameter

Question **14**

Correct

Mark 1.00 out of 1.00

What is Skewness of Data refers to?

Select one:

- a. Skewness refers to the standard error in the distribution of data
- b. How far the population mean is distributed compared to that of sample mean
- c. Sample mean distributed over the population mean in a given series
- d. The term 'skewness' is used to mean the absence of symmetry from the mean of the dataset. It is characteristic of the deviation from the mean, to be greater on one side than the other, i.e. attribute of the distribution having one tail heavier than the other. Skewness is used to indicate the shape of the distribution of data. ✔

The correct answer is: The term 'skewness' is used to mean the absence of symmetry from the mean of the dataset. It is characteristic of the deviation from the mean, to be greater on one side than the other, i.e. attribute of the distribution having one tail heavier than the other. Skewness is used to indicate the shape of the distribution of data.

Question **15**

Incorrect

Mark 0.00 out of 1.00

The Marginal Cost Function can be represented in the following regression function.

$$Y = B_1 + B_2 X + B_3 X^2$$

Here Y is Marginal Cost and X is output. This is the case of which regression function

Select one:

- a. Simple Regression Function
- b. Polynomial Regression Function
- c. Population Regression Function ✖
- d. Multiple Regression Function

The correct answer is: Polynomial Regression Function

Question **16**

Correct

Mark 1.00 out of 1.00

In a Logistic Regression Model (Logit Model) if the parameters and the independent variables are non-linear, then which estimator is ideal

Select one:

- a. OLS - Ordinary Least Squared
- b. Both OLS and MLE
- c. Neither OLS nor MLE
- d. MLE - Maximum Likelihood Estimator ✔

The correct answer is: MLE - Maximum Likelihood Estimator

Question **17**

Correct

Mark 1.00 out of 1.00

The null and alternative hypotheses are written about

Select one:

- a. sample data
- b. a population parameter ✔
- c. sample statistic

The correct answer is: a population parameter

Question **18**

Correct

Mark 1.00 out of 1.00

$\mu \pm 3\sigma$ covers _____of the items in a data set.

Select one:

- a. 90%
- b. 95%
- c. 99.73% ✔
- d. 68%

The correct answer is: 99.73%

Question **19**

Correct

Mark 1.00 out of 1.00

Difference between R square value and F statistic probabilistic value in regression output is

Select one:

- a. While F statistics probability value shows the significance of individual variable R squared value shows the significance of all the variable taken together
- b. R square relates to Cross sectional data but F statistic prob value relate to time series data
- c. R square detect mistakes in selection of variable but F statistic prob value trace mistakes in the estimator
- d. While R square explains g\Goodness of Fit of the Model within sample F statistics probability value shows Goodness of Fit of the Model in population ✔

The correct answer is: While R square explains g\Goodness of Fit of the Model within sample F statistics probability value shows Goodness of Fit of the Model in population

Question **20**

Incorrect

Mark 0.00 out of 1.00

What is the best description of a point estimate?

Select one:

- a. a sample statistic used to estimate a parameter ✖
- b. the margin of error used to estimate a parameter
- c. any value from the sample used to estimate a parameter

The correct answer is: any value from the sample used to estimate a parameter

Question **21**

Correct

Mark 1.00 out of 1.00

Which of these is NOT a correct null hypothesis?

Select one:

- a. $H_0: \mu_1 - \mu_2 = 0$ ✔
- b. $H_0: \mu_1 < \mu_2$
- c. $H_0: \mu_1 = \mu_2$

The correct answers are: $H_0: \mu_1 - \mu_2 = 0$, $H_0: \mu_1 < \mu_2$

Question **22**

Correct

Mark 1.00 out of 1.00

The sum of the the deviations about mean is

Select one:

- a. None of thses
- b. Maximum
- c. zero ✔
- d. Minimum

The correct answer is: zero

Question **23**

Incorrect

Mark 0.00 out of 1.00

_____ is the square root of the sum of square deviations of various values from their arithmetic mean divided by the sample size minus one.

Select one:

- a. Standard Deviation
- b. Mean absolute deviation
- c. Varaince ✖

The correct answer is: Standard Deviation

Question **24**

Incorrect

Mark 0.00 out of 1.00

An estimator is efficient when

Select one:

- a. it caputres all infromations
- b. it is unbiased
- c. all of these ✖
- d. it has minimum variance

The correct answer is: it has minimum variance

Question **25**

Incorrect

Mark 0.00 out of 1.00

Pooled cross section data differs from cross-section data in that pooled cross section data is observed

Select one:

- a. for a given individual in a given time-period.
- b. for a number of different individuals in a given time-period.
- c. for a number of different individuals in a given time-period. ✖
- d. for a number of different individuals in a number of different time-periods

The correct answer is: for a number of different individuals in a number of different time-periods

Question **26**

Correct

Mark 1.00 out of 1.00

Which one of the following is NOT a BLUE property of Classical Linear Regression Function

Select one:

- a. Standard Error is MINIMUM- that is the exactness of estimated coefficients are less with minimum difference between sample mean and population mean ✔
- b. Efficient Estimator - An Unbiased Estimator with least variance
- c. It is Linear. that is a linear function of a random variable such as the Dependent Variable in the regression model
- d. It is UNBIASED , that is the average EXPECTED VALUE is equal to the TRUE VALUE
- e. It has MINIMUM VARIANCE in the class of all such linear unbiased estimators

The correct answer is: Standard Error is MINIMUM- that is the exactness of estimated coefficients are less with minimum difference between sample mean and population mean

Question **27**

Incorrect

Mark 0.00 out of 1.00

What is the difference between data measured on an interval scale and data measured on a ratio scale?

Select one:

- a. A ratio scale has equal intervals between the points on the scale, whereas an interval scale does not. ✖
- b. A ratio scale puts scores into categories, while an interval scale measures on a continuous scale.
- c. An interval scale has an arbitrarty zero which vary form varaibels to variables under study
- d. An interval scale has a true zero point, so zero on the scale corresponds to zero of the concept being measured.

The correct answer is: An interval scale has an arbitrarty zero which vary form varaibels to variables under study

Question **28**

Correct

Mark 1.00 out of 1.00

The value of R squared ranges from

Select one:

- a. not necessarily always be positive i.e. it can be negative also
- b. Zero to Infinity
- c. Zero to 1 ✔
- d. <0 but can never be >1

The correct answer is: Zero to 1

Question **29**

Correct

Mark 1.00 out of 1.00

What is the difference between Mean, Median and Mode

Select one:

- a. Mean is the average of the observations, Median is the middle value when arranged in ascending order and mode is the more repeated value in the group ✔
- b. All are one and same
- c. Mode is the middle value Median is the average of an observation and Mean is the most repeated value in the group
- d. While Mean is the middle one mode is the average and median is the mostly repeated value

The correct answer is: Mean is the average of the observations, Median is the middle value when arranged in ascending order and mode is the more repeated value in the group

Question **30**

Correct

Mark 1.00 out of 1.00

What is the assumption related to Outlier in X Variable in the CLRM

Select one:

- a. The X values in a given sample must not all be the same. That is , technically Var (X) must be a positive number which means there can be no outliers in the values of the X variable ✔
- b. X values should be more than the y value but not as equal to the error
- c. X values are fixed in quantity may or may not be stochastic in nature
- d. Fixed Quantity of X values need not necessary be the non stochastic in nature though the errors are always non stochastic in nature

The correct answer is: The X values in a given sample must not all be the same. That is , technically Var (X) must be a positive number which means there can be no outliers in the values of the X variable

Question **31**

Incorrect

Mark 0.00 out of 1.00

What distinguishes a mathematical model and econometric model?

Select one:

- a. Explanator Variable ✖
- b. Error Term
- c. parameters
- d. Dependent Variable

The correct answer is: Error Term

Question **32**

Correct

Mark 1.00 out of 1.00

p value test

Select one:

- a. The tolerance level of multicollinearity
- b. the significance of B coefficient
- c. the null hypothesis that B coefficient is always equal to zero
- d. the null hypothesis that B Coefficient is equal to zero ✔

The correct answer is: the null hypothesis that B Coefficient is equal to zero

Question **33**

Correct

Mark 1.00 out of 1.00

What is the major difference between Correlation and Regression

Select one:

- a. While the term stochastic variable plays no role in correlation it is very important in regression
- b. Regression cannot predict future trends but correlation can predict future trends
- c. While Correlation explains the direction and strength of relationship between two variables Regression explains the amount of changes in dependent variable based on the changes of one or more independent variables ✔
- d. Both are more or less the same

The correct answer is: While Correlation explains the direction and strength of relationship between two variables Regression explains the amount of changes in dependent variable based on the changes of one or more independent variables

Question **34**

Incorrect

Mark 0.00 out of 1.00

Which of the following does NOT contributes to the Error Term

Select one:

- a. Vagueness of Theory and unavailability of data
- b. Improper Functional Form and Measurement Error
- c. Poor Proxy Variables and the Principle of Parsimony
- d. Linear in the variable but not in the parameter
- e. Intrinsic Randomness in Human Behavior ✖

The correct answer is: Linear in the variable but not in the parameter

Question **35**

Incorrect

Mark 0.00 out of 1.00

If a researcher is probing the efficacy of the two available Covid 19 Vaccines - Covishiled and Covaxin (Dependent Variable) in the all the Indian states with 5 Independent Variables - which type data the researcher is probing

Select one:

- a. Pooled Data
- b. Time Series Data ✖
- c. Cross Sectional Data
- d. Micro Panel Data

The correct answer is: Cross Sectional Data

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Jump to...

INNOVATIVE ASSIGNMENT - INTRODUCTION TO ECONOMETRICS ►

Started on	Wednesday, 13 October 2021, 3:03 PM
State	Finished
Completed on	Wednesday, 13 October 2021, 3:48 PM
Time taken	45 mins 1 sec
Grade	**16.00** out of 35.00 (**46**%)

Question **1**

Correct

Mark 1.00 out of 1.00

The shape of the normal curve depends on its _____

Select one:

- a. Mean deviation
- b. Standard deviation ✔
- c. Correlation
- d. Quartile deviation

The correct answer is: Standard deviation

Question **2**

Incorrect

Mark 0.00 out of 1.00

What are panel data?

Select one:

- a. data containing skewed variable distributions
- b. data measured at one point in time
- c. data containing units measured at different time points ✖
- d. data where each unit is measured at more than one time point

The correct answer is: data where each unit is measured at more than one time point

Question **3**

Correct

Mark 1.00 out of 1.00

The local wants to install cameras that can "catch" drivers who run red lights. They choose a busy intersection, install a test camera, and determine whether each car stops safely or "runs" the light. Choose the correct scale of measurement.

Select one:

- a. Ratio
- b. Interval
- c. Nominal ✔
- d. Ordinal

The correct answer is: Nominal

Question **4**

Correct

Mark 1.00 out of 1.00

Difference between R square value and F statistic probabilistic value in regression output is

Select one:

- a. R square detect mistakes in selection of variable but F statistic prob value trace mistakes in the estimator
- b. R square relates to Cross sectional data but F statistic prob value relate to time series data
- c. While R square explains g\Goodness of Fit of the Model within sample F statistics probability value shows Goodness of Fit of the Model in population ✔
- d. While F statistics probability value shows the significance of individual variable R squared value shows the significance of all the variable taken together

The correct answer is: While R square explains g\Goodness of Fit of the Model within sample F statistics probability value shows Goodness of Fit of the Model in population

Question **5**

Correct

Mark 1.00 out of 1.00

The following Regression result is obtained after evaluating the employment potential of Engineering students in Nirma. Find out this is a case of what type of regression?

$Y = B_1 + B_2 X1 + B_3 X2 + B_4 X3 + u$

Y = Employability Skill of Nirma Engineering Students

X1 = Technical Skill of Domain Specialisation

X2 = Communication Skill

X3 = Managerial Capabilities

u = Stochastic Random Variable

Select one:

- a. Multiple Regression ✔
- b. Polynomial Regression
- c. Simple Regression
- d. Population Regression Function

The correct answer is: Multiple Regression

Question **6**

Correct

Mark 1.00 out of 1.00

whaich of the follwing is true about normal distrubtion

Select one:

- a. the normal curve is symmetrical ✔
- b. mean , median and mode of a normal distribution are not equal
- c. the parameters of normal curve are sample mean and sample varaince
- d. the normal curve is skewed

The correct answer is: the normal curve is symmetrical

Question **7**

Correct

Mark 1.00 out of 1.00

$\mu \pm 3\sigma$ covers _____of the items in a data set.

Select one:

- a. 90%
- b. 68%
- c. 95%
- d. 99.73% ✔

The correct answer is: 99.73%

Question **8**

Correct

Mark 1.00 out of 1.00

Which of these is an example of a test statistic?

Select one:

- a. the sample mean
- b. the population mean
- c. a *z*-score ✔

The correct answer is: a *z*-score

Question **9**

Incorrect

Mark 0.00 out of 1.00

Which of the following statements are correct?

Select one:

- a. a point estimate is an unbiased estimator if its standard deviation is the same as the actual value of the population standard deviation ✖
- b. a point estimate is a single value estimate of the value of a population parameter
- c. all of the above statements are correct
- d. a point estimate is an estimate of the range of a population parameter

The correct answer is: a point estimate is a single value estimate of the value of a population parameter

Question **10**

Incorrect

Mark 0.00 out of 1.00

Consider the following statements

Statement 1

Jignesh scores well in Mathematics. His score in Statistics is also too good

Statement 2

Based on Jignesh's good score in Mathematics we can predict his score in Statistics

Select one:

- a. Both statements need stochastic random variable to show the correlation ✖
- b. Both statements are true
- c. Statement 1 and Statement 2 show correlation only
- d. While statement 1 can be inferred from Correlation Statement 2 is simply the outcome of regression

The correct answer is: While statement 1 can be inferred from Correlation Statement 2 is simply the outcome of regression

Question **11**

Incorrect

Mark 0.00 out of 1.00

Which one of the following is NOT a BLUE property of Classical Linear Regression Function

Select one:

- a. It is UNBIASED , that is the average EXPECTED VALUE is equal to the TRUE VALUE
- b. It is Linear. that is a linear function of a random variable such as the Dependent Variable in the regression model
- c. Standard Error is MINIMUM- that is the exactness of estimated coefficients are less with minimum difference between sample mean and population mean
- d. Efficient Estimator - An Unbiased Estimator with least variance
- e. It has MINIMUM VARIANCE in the class of all such linear unbiased estimators ✖

The correct answer is: Standard Error is MINIMUM- that is the exactness of estimated coefficients are less with minimum difference between sample mean and population mean

Question **12**

Not answered

Marked out of 1.00

Kurtosis refers to

Select one:

- a. Kurtosis is the spread or standard deviation of an observation from its average value
- b. Kurtosis is the spread of a sample distribution in a series
- c. Kurtosis is square root of variance
- d. In statistics, kurtosis is defined as the parameter of relative sharpness of the peak of the probability distribution curve. It ascertains the way observations are clustered around the centre of the distribution. It is used to indicate the flatness or peakedness of the frequency distribution curve and measures the tails or outliers of the distribution
- e. Kurtosis is the probability distribution of non linear regression errors

The correct answer is: In statistics, kurtosis is defined as the parameter of relative sharpness of the peak of the probability distribution curve. It ascertains the way observations are clustered around the centre of the distribution. It is used to indicate the flatness or peakedness of the frequency distribution curve and measures the tails or outliers of the distribution

Question **13**

Incorrect

Mark 0.00 out of 1.00

The population mean μ is called:

Select one:

- a. Discrete variable ✖
- b. Continuous variable
- c. Parameter
- d. Statistic

The correct answer is: Parameter

Question **14**

Incorrect

Mark 0.00 out of 1.00

Heteroscedasticity means

Select one:

- a. The probability distribution of error terms follows normal distribution with constant variance
- b. The Independent variables spread but not the error terms ✖
- c. The dependent variable does not change at all
- d. If the the conditional variance of Y population varies with X it is a situation of Heteroscedasticity or unequal spread or variance

The correct answer is: If the the conditional variance of Y population varies with X it is a situation of Heteroscedasticity or unequal spread or variance

Question **15**

Correct

Mark 1.00 out of 1.00

If two variables are independant , correlation coefficent is zero.

Select one:

- True ✔
- False

The correct answer is 'True'.

Question **16**

Incorrect

Mark 0.00 out of 1.00

R Squared value shows

Select one:

- a. Goodness of Fit of the Model in Sample not in population
- b. It further reaffirms the p value as a statistical significance
- c. Goodness of fit of the model in population not in sample ✖
- d. Exactness of coefficient values of each independent variable

The correct answer is: Goodness of Fit of the Model in Sample not in population

Question **17**

Correct

Mark 1.00 out of 1.00

What is the difference between standard deviation and standard error

Select one:

- a. Both are same
- b. While standard error is mean deviation standard deviation is better captures the outliers
- c. While standard deviation is the spread of individual observation from the mean standard error is the the exactness of sample mean to population mena ✔
- d. While Standard Error captures the spread Standard Deviations captures the exactness of estimates

The correct answer is: While standard deviation is the spread of individual observation from the mean standard error is the the exactness of sample mean to population mena

Question **18**

Incorrect

Mark 0.00 out of 1.00

The sum of the the deviations about mean is

Select one:

- a. Maximum
- b. None of thses
- c. zero
- d. Minimum ✖

The correct answer is: zero

Question **19**

Correct

Mark 1.00 out of 1.00

p value test

Select one:

- a. The tolerance level of multicollinearity
- b. the null hypothesis that B Coefficient is equal to zero ✔
- c. the null hypothesis that B coefficient is always equal to zero
- d. the significance of B coefficient

The correct answer is: the null hypothesis that B Coefficient is equal to zero

Question **20**

Correct

Mark 1.00 out of 1.00

X is a random normal variable, with mean μ and variance Invalid <msup> element. The "standardised form" of X is $Z = (X-\mu)/\sigma$.
What are the mean and variance, respectively, of Z ?

Select one:

- a. 1, 0
- b. 1, 1
- c. 0, 1 ✔
- d. 0, 2

The correct answer is: 0, 1

Question **21**

Correct

Mark 1.00 out of 1.00

The null and alternative hypotheses are written about

Select one:

- a. a population parameter ✔
- b. sample statistic
- c. sample data

The correct answer is: a population parameter

Question **22**

Incorrect

Mark 0.00 out of 1.00

What does the following shows

E(ui |Xi) = 0

Select one:

- a. The Zero Mean Value of Disturbance - one of the TEN assumptions of Classical Linear Regression Models
- b. Zero Variance in the estimated errors ✖
- c. Zero Tolerance level in the case of Multicollinearity
- d. Zero Variance in the Dependent Variable Y with reference to Independent Variable X

The correct answer is: The Zero Mean Value of Disturbance - one of the TEN assumptions of Classical Linear Regression Models

Question **23**

Incorrect

Mark 0.00 out of 1.00

What do you mean by the assumption of CLRM that the X values are FIXED

Select one:

- a. The X and U are non stochastic but Y is Stochastic
- b. Values taken by X are fixed in repeated samples or X values are independent of Error Term
- c. The X values are stochastic random in nature while the Y is a non stochastic variable ✖
- d. It refers to fixed quantity of X values with reference to the fixed quantity of Y value in a situation where the error term is stochastic random value

The correct answer is: Values taken by X are fixed in repeated samples or X values are independent of Error Term

Question **24**

Correct

Mark 1.00 out of 1.00

When Hypothesis is tested?

Select one:

- a. After Hypothesis is framed
- b. After Estimating the Econometric Model ✔
- c. After the forecasting or prediction of the model is done
- d. After data is obtained but before estimating the econometric model

The correct answer is: After Estimating the Econometric Model

Question **25**

Correct

Mark 1.00 out of 1.00

What is the Keynesian Consumption Law?

Select one:

- a. Both Consumption and Income are functions of demand
- b. Consumption is the function of income and nothing else
- c. When Income increases consumption increases but not necessarily in the same rate ✔
- d. While consumption is the function of income, income is the function of economy as a whole

The correct answer is: When Income increases consumption increases but not necessarily in the same rate

Question **26**

Correct

Mark 1.00 out of 1.00

What is Hypothesis

Select one:

- a. Hypothesis is a statement to be proved or disproved with statistical inference ✔
- b. Hypothesis is the last step in Econometric Model
- c. It is a wonderful term in Econometrics which deals with descriptive statistics
- d. Hypothesis is not necessary at all for validity purpose

The correct answer is: Hypothesis is a statement to be proved or disproved with statistical inference

Question **27**

Not answered

Marked out of 1.00

What is the assumption related to Outlier in X Variable in the CLRM

Select one:

- a. X values are fixed in quantity may or may not be stochastic in nature
- b. X values should be more than the y value but not as equal to the error
- c. The X values in a given sample must not all be the same. That is , technically Var (X) must be a positive number which means there can be no outliers in the values of the X variable
- d. Fixed Quantity of X values need not necessary be the non stochastic in nature though the errors are always non stochastic in nature

The correct answer is: The X values in a given sample must not all be the same. That is , technically Var (X) must be a positive number which means there can be no outliers in the values of the X variable

Question **28**

Incorrect

Mark 0.00 out of 1.00

What is the difference between data measured on an interval scale and data measured on a ratio scale?

Select one:

- a. An interval scale has a true zero point, so zero on the scale corresponds to zero of the concept being measured.
- b. A ratio scale has equal intervals between the points on the scale, whereas an interval scale does not.
- c. A ratio scale puts scores into categories, while an interval scale measures on a continuous scale. ✖
- d. An interval scale has an arbitrarty zero which vary form varaibels to variables under study

The correct answer is: An interval scale has an arbitrarty zero which vary form varaibels to variables under study

Question **29**

Incorrect

Mark 0.00 out of 1.00

Which of the following statements is correct?

Select one:

- a. an interval estimate describes a range of values that is likely not to include the actual population parameter
- b. none of the statements a are correct ✖
- c. an interval estimate is an estimate of the range for a sample statistic
- d. an interval estimate is an estimate of the range of possible values for a population parameter

The correct answer is: an interval estimate is an estimate of the range of possible values for a population parameter

Question **30**

Incorrect

Mark 0.00 out of 1.00

Which of these is a correct null hypothesis?

Select one:

a. $\mathbf{H}_0 : \bar{x} = 12$

b. H_0: $\mu > 12$ ✖

c. H_0: $\mu = 12$

The correct answer is: H_0: $\mu = 12$

Question **31**

Correct

Mark 1.00 out of 1.00

School administrators sponsor a study of bullying on elementary school playgrounds. Trained observers record the number of incidents of aggression that occur during consecutive 10-minute periods. Aggression is measured on which of the following scales of measurement

Select one:

a. Ratio ✔

b. Interval

c. Nominal

d. Ordinal

The correct answer is: Ratio

Question **32**

Incorrect

Mark 0.00 out of 1.00

_____ is the square root of the sum of square deviations of various values from their arithmetic mean divided by the sample size minus one.

Select one:

a. Standard Deviation

b. Varaince ✖

c. Mean absolute deviation

The correct answer is: Standard Deviation

Question **33**

Incorrect

Mark 0.00 out of 1.00

In a Multiple Regression Function how will you interpret the significance of individual independent variable

Select one:

a. You need to interpret the sign of B coefficient, B coefficient value keeping other variables constant and the p value of the concerned independent variable

b. By interpreting the B coefficient value and the R Squared Value but not the F statistic Probability value

c. By interpreting the p value ✖

d. By interpreting the B coefficient value keeping the B coefficient value of other independent variables constant and also by interpreting the p value to study the statistical significance

The correct answer is: You need to interpret the sign of B coefficient, B coefficient value keeping other variables constant and the p value of the concerned independent variable

Question **34**

Incorrect

Mark 0.00 out of 1.00

Which of the following does NOT contributes to the Error Term

Select one:

- a. Vagueness of Theory and unavailability of data ✖
- b. Poor Proxy Variables and the Principle of Parsimony
- c. Linear in the variable but not in the parameter
- d. Improper Functional Form and Measurement Error
- e. Intrinsic Randomness in Human Behavior

The correct answer is: Linear in the variable but not in the parameter

Question **35**

Incorrect

Mark 0.00 out of 1.00

Imagine a researcher is probing the inflation in Indian Economy from 2019-20 to 2020-21 (Two Observations) considering the following variables

1. Inflation - Dependent Variable
2. Money Supply (M3) - Independent Variable
3. Gross Domestic Product (GDP) - Independent Variable
4. Imports (Independent Variable)
5. Price of Petrol (Independent Variable)

Here which assumption of Classical Linear Regression Model is violated

Select one:

- a. The number of observations - n must be greater than the number of parameters to be estimated
- b. Homoscedasticity ✖
- c. No Perfect Multicollinearity
- d. No Auto Correlation

The correct answer is: The number of observations - n must be greater than the number of parameters to be estimated

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Jump to...

INNOVATIVE ASSIGNMENT - INTRODUCTION TO ECONOMETRICS ►

Started on	Wednesday, 13 October 2021, 3:02 PM
State	Finished
Completed on	Wednesday, 13 October 2021, 3:47 PM
Time taken	44 mins 40 secs
Grade	**25.00** out of 35.00 (**71**%)

Question **1**

Correct

Mark 1.00 out of 1.00

What is the difference between Mean, Median and Mode

Select one:

- a. All are one and same
- b. While Mean is the middle one mode is the average and median is the mostly repeated value
- c. Mean is the average of the observations, Median is the middle value when arranged in ascending order and mode is the more repeated value in the group ✔
- d. Mode is the middle value Median is the average of an observation and Mean is the most repeated value in the group

The correct answer is: Mean is the average of the observations, Median is the middle value when arranged in ascending order and mode is the more repeated value in the group

Question **2**

Correct

Mark 1.00 out of 1.00

If two variables are independant , correlation coefficent is zero.

Select one:

- True ✔
- False

The correct answer is 'True'.

Question **3**

Correct

Mark 1.00 out of 1.00

Pooled cross section data differs from cross-section data in that pooled cross section data is observed

Select one:

- a. for a number of different individuals in a given time-period.
- b. for a number of different individuals in a number of different time-periods ✔
- c. for a given individual in a given time-period.
- d. for a number of different individuals in a given time-period.

The correct answer is: for a number of different individuals in a number of different time-periods

Question **4**

Correct

Mark 1.00 out of 1.00

Which of the following is NOT true about OLS Estimators

Select one:

- a. OLS estimators are point estimators, that is, given the sample , each estimator will provide only a single point value of the relevant population parameter
- b. Once the OLS estimates are obtained from the sample data, the sample regression line can be obtained
- c. The OLS estimators are expressed solely in terms of the observable (sample) quantities(X and Y)
- d. The OLS estimators can be used for large sample size where the normality assumption of the probability distribution of error term is mandatory ✔

The correct answer is: The OLS estimators can be used for large sample size where the normality assumption of the probability distribution of error term is mandatory

Question **5**

Correct

Mark 1.00 out of 1.00

The local wants to install cameras that can "catch" drivers who run red lights. They choose a busy intersection, install a test camera, and determine whether each car stops safely or "runs" the light. Choose the correct scale of measurement.

Select one:

- a. Ratio
- b. Ordinal
- c. Interval
- d. Nominal ✔

The correct answer is: Nominal

Question **6**

Incorrect

Mark 0.00 out of 1.00

What distinguishes a mathematical model and econometric model?

Select one:

- a. Error Term
- b. Explanator Variable
- c. parameters ✖
- d. Dependent Variable

The correct answer is: Error Term

Question **7**

Correct

Mark 1.00 out of 1.00

Type 1 Error means

Select one:

- a. The probability of rejecting a false null hypothesis
- b. The beta error
- c. The probability of rejecting a true null hypothesis ✔
- d. The probability of not rejecting a false null hypothesis

The correct answer is: The probability of rejecting a true null hypothesis

Question **8**

Correct

Mark 1.00 out of 1.00

Which of the following statements is correct?

Select one:

- a. an interval estimate describes a range of values that is likely not to include the actual population parameter
- b. none of the statements a are correct
- c. an interval estimate is an estimate of the range for a sample statistic
- d. an interval estimate is an estimate of the range of possible values for a population parameter ✔

The correct answer is: an interval estimate is an estimate of the range of possible values for a population parameter

Question **9**

Correct

Mark 1.00 out of 1.00

The null and alternative hypotheses are written about

Select one:

- a. a population parameter ✔
- b. sample statistic
- c. sample data

The correct answer is: a population parameter

Question **10**

Correct

Mark 1.00 out of 1.00

Which of these is an example of a test statistic?

Select one:

- a. the sample mean
- b. the population mean
- c. a *z*-score ✔

The correct answer is: a *z*-score

Question **11**

Correct

Mark 1.00 out of 1.00

Difference between R square value and F statistic probabilistic value in regression output is

Select one:

- a. R square relates to Cross sectional data but F statistic prob value relate to time series data
- b. While F statistics probability value shows the significance of individual variable R squared value shows the significance of all the variable taken together
- c. While R square explains g\Goodness of Fit of the Model within sample F statistics probability value shows Goodness of Fit of the Model in population ✔
- d. R square detect mistakes in selection of variable but F statistic prob value trace mistakes in the estimator

The correct answer is: While R square explains g\Goodness of Fit of the Model within sample F statistics probability value shows Goodness of Fit of the Model in population

Question **12**

Correct

Mark 1.00 out of 1.00

Along with being unbiased, which of the following is another desired quality of a good point estimator?

Select one:

- a. large mean square error
- b. large expected value
- c. small average
- d. minimum variance ✔

The correct answer is: minimum variance

Question **13**

Incorrect

Mark 0.00 out of 1.00

Imagine a researcher is probing the inflation in Indian Economy from 2019-20 to 2020-21 (Two Observations) considering the following variables

1. Inflation - Dependent Variable
2. Money Supply (M3) - Independent Variable
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Here which assumption of Classical Linear Regression Model is violated

Select one:

- a. No Perfect Multicollinearity
- b. The number of observations - n must be greater than the number of parameters to be estimated
- c. Homoscedasticity ✖
- d. No Auto Correlation

The correct answer is: The number of observations - n must be greater than the number of parameters to be estimated

Question **14**

Incorrect

Mark 0.00 out of 1.00

When Hypothesis is tested?

Select one:

- a. After Estimating the Econometric Model
- b. After Hypothesis is framed
- c. After data is obtained but before estimating the econometric model ✖
- d. After the forecasting or prediction of the model is done

The correct answer is: After Estimating the Econometric Model

Question **15**

Correct

Mark 1.00 out of 1.00

We must arrange the data before calculating:

Select one:

- a. harmonic mean
- b. Mean
- c. Median ✔
- d. Mode

The correct answer is: Median

Question **16**

Incorrect

Mark 0.00 out of 1.00

What do you mean by Linear Regression?

Select one:

- a. Linearity is not at all an assumption in the Classical Linear Regression Model, its only the first property of BLUE in a linear regression model
- b. It is linear in the variables, the X's but may or may not linear in the parameters, the Bs
- c. It is linear both in parameters, the Bs and in the explanatory variables, the X's ✖
- d. The term "linear regression" will always means a regression which is linear in the parameters - the Bs are raised to the first power only it may or may not be linear in the explanatory variables , the X's.

The correct answer is: The term "linear regression" will always means a regression which is linear in the parameters - the Bs are raised to the first power only it may or may not be linear in the explanatory variables , the X's.

Question **17**

Incorrect

Mark 0.00 out of 1.00

In a simple consumption and income model given below which variables are stochastic in nature

$$Y = B_1 + B_2 X + u$$

Where in Y is the dependent variable of Consumption and X is the income, B_1 and B_2 are coefficients and u is the error term

Select one:

- a. Error Term - u
- b. Income(X) and Consumption (Y)
- c. Consumption (Y) and the Error Term (u)
- d. Y (Consumption)
- e. X (Income) ✖

The correct answer is: Consumption (Y) and the Error Term (u)

Question **18**

Correct

Mark 1.00 out of 1.00

The value of R squared ranges from

Select one:

- a. not necessarily always be positive i.e. it can be negative also
- b. Zero to 1 ✔
- c. <0 but can never be >1
- d. Zero to Infinity

The correct answer is: Zero to 1

Question **19**

Incorrect

Mark 0.00 out of 1.00

The extent or the degree to which data tend to spread around _____ is called the dispersion or variation of data.

Select one:

- a. Percentiles
- b. Average
- c. Range
- d. Quartiles ✖

The correct answer is: Average

Question **20**

Incorrect

Mark 0.00 out of 1.00

What is Skewness of Data refers to?

Select one:

- a. Skewness refers to the standard error in the distribution of data
- b. How far the population mean is distributed compared to that of sample mean ✖
- c. Sample mean distributed over the population mean in a given series
- d. The term 'skewness' is used to mean the absence of symmetry from the mean of the dataset. It is characteristic of the deviation from the mean, to be greater on one side than the other, i.e. attribute of the distribution having one tail heavier than the other. Skewness is used to indicate the shape of the distribution of data.

The correct answer is: The term 'skewness' is used to mean the absence of symmetry from the mean of the dataset. It is characteristic of the deviation from the mean, to be greater on one side than the other, i.e. attribute of the distribution having one tail heavier than the other. Skewness is used to indicate the shape of the distribution of data.

Question **21**

Correct

Mark 1.00 out of 1.00

What is Gauss-Markov Theorem?

Select one:

- a. Given the assumptions of Classical Linear Regression Model (CLRM),, the least square estimators,in the class of unbiashed linear estimators, have minimum variance, i.e. they are BLUE - Best Linear Unbiased Estimators ✔
- b. Gauss is a strong supporter of Kenysian Consumption Function but Markov is a strong supporter of Classical Linear Regression Function
- c. Gauss Markov Theorem supports the Keneysian Consumption Function
- d. Gauss Markov Theorem supports the Type I Error but do not support Type II Error

The correct answer is: Given the assumptions of Classical Linear Regression Model (CLRM),, the least square estimators,in the class of unbiashed linear estimators, have minimum variance, i.e. they are BLUE - Best Linear Unbiased Estimators

Question **22**

Correct

Mark 1.00 out of 1.00

What does the following equation shows?

var (ui |Xi) = E[ui − E(ui |Xi)]2

Select one:

- a. The constant variance arises only if the data is time series data but not in cross sectional data
- b. Data is inadequate
- c. The variance of the error or disturbance term is the same regardless of the value of X - there exist Homoscedasticity or constant variance which is one of the assumptions of CLRM ✔
- d. There is a constant variance in the independent variables, regardless of the dependent variables but not in the error terms

The correct answer is: The variance of the error or disturbance term is the same regardless of the value of X - there exist Homoscedasticity or constant variance which is one of the assumptions of CLRM

Question **23**

Correct

Mark 1.00 out of 1.00

What is your interpretation of constant term in the regression?

Select one:

- a. Constant term in regression explains the intercept concept ✔
- b. Constant term is fixed and dropping of any one explanatory variables does not effect the relationship at all
- c. Constant Term is not compulsory
- d. Constant term is non stochastic
- e. Constant Term captures the unexplained variables in the regression

The correct answer is: Constant term in regression explains the intercept concept

Question **24**

Correct

Mark 1.00 out of 1.00

whaich of the follwing is true about normal distrubtion

Select one:

- a. the parameters of normal curve are sample mean and sample varaince
- b. mean , median and mode of a normal distribution are not equal
- c. the normal curve is symmetrical ✔
- d. the normal curve is skewed

The correct answer is: the normal curve is symmetrical

Question **25**

Correct

Mark 1.00 out of 1.00

$\mu \pm 3\sigma$ covers _____of the items in a data set.

Select one:

- a. 95%
- b. 99.73% ✔
- c. 90%
- d. 68%

The correct answer is: 99.73%

Question **26**

Correct

Mark 1.00 out of 1.00

In a Logistic Regression Model (Logit Model) if the parameters and the independent variables are non-linear, then which estimator is ideal

Select one:

- a. Neither OLS nor MLE
- b. Both OLS and MLE
- c. MLE - Maximum Likelihood Estimator ✔
- d. OLS - Ordinary Least Squared

The correct answer is: MLE - Maximum Likelihood Estimator

Question **27**

Correct

Mark 1.00 out of 1.00

In Normal distribution, the highest value of ordinate occurs at _____

Select one:

- a. Variance
- b. Extremes
- c. Same value occurs at all points
- d. Mean ✔

The correct answer is: Mean

Question **28**

Correct

Mark 1.00 out of 1.00

What is the major difference between Correlation and Regression

Select one:

- a. While Correlation explains the direction and strength of relationship between two variables Regression explains the amount of changes in dependent variable based on the changes of one or more independent variables ✔
- b. While the term stochastic variable plays no role in correlation it is very important in regression
- c. Both are more or less the same
- d. Regression cannot predict future trends but correlation can predict future trends

The correct answer is: While Correlation explains the direction and strength of relationship between two variables Regression explains the amount of changes in dependent variable based on the changes of one or more independent variables

Question **29**

Correct

Mark 1.00 out of 1.00

F statistic probability value test

Select one:

- a. Randomness of the sample
- b. Goodness of Fit of the model in population ✔
- c. Goodness of Fit of the model in a sample
- d. Sample Adequacy Test

The correct answer is: Goodness of Fit of the model in population

Question **30**

Correct

Mark 1.00 out of 1.00

The Marginal Cost Function can be represented in the following regression function.

$$Y = B_1 + B_2 X + B_3 X^2$$

Here Y is Marginal Cost and X is output. This is the case of which regression function

Select one:

- a. Polynomial Regression Function ✔
- b. Simple Regression Function
- c. Multiple Regression Function
- d. Population Regression Function

The correct answer is: Polynomial Regression Function

Question **31**

Correct

Mark 1.00 out of 1.00

Which of these is NOT a correct null hypothesis?

Select one:

- a. $H_0: \mu_1 = \mu_2$
- b. $H_0: \mu_1 - \mu_2 = 0$ ✔
- c. $H_0: \mu_1 < \mu_2$

The correct answers are: $H_0: \mu_1 - \mu_2 = 0$, $H_0: \mu_1 < \mu_2$

Question **32**

Correct

Mark 1.00 out of 1.00

School administrators sponsor a study of bullying on elementary school playgrounds. Trained observers record the number of incidents of aggression that occur during consecutive 10-minute periods. Aggression is measured on which of the following scales of measurement

Select one:

- a. Nominal
- b. Ordinal
- c. Ratio ✔
- d. Interval

The correct answer is: Ratio

Question **33**

Incorrect

Mark 0.00 out of 1.00

X is a random normal variable, with mean μ and variance Invalid <msup> element. The "standardised form" of X is $Z = (X-\mu)/\sigma$.
What are the mean and variance, respectively, of Z ?

Select one:

- a. 0, 1
- b. 1, 0 ✖
- c. 1, 1
- d. 0, 2

The correct answer is: 0, 1

Question **34**

Incorrect

Mark 0.00 out of 1.00

The population mean μ is called:

Select one:

- a. Parameter
- b. Continuous variable
- c. Discrete variable
- d. Statistic ✖

The correct answer is: Parameter

Question **35**

Incorrect

Mark 0.00 out of 1.00

What is the difference between data measured on an interval scale and data measured on a ratio scale?

Select one:

- a. A ratio scale has equal intervals between the points on the scale, whereas an interval scale does not.
- b. A ratio scale puts scores into categories, while an interval scale measures on a continuous scale. ✖
- c. A ratio scale has a true zero point, so zero on the scale corresponds to zero of the concept being measured.
- d. An interval scale has a true zero point, so zero on the scale corresponds to zero of the concept being measured.

The correct answer is: A ratio scale has a true zero point, so zero on the scale corresponds to zero of the concept being measured.

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