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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?

$$\text{cov}(u_i, u_j | X_i, X_j) = E\{[u_i - E(u_i)] | X_i\}[u_j - E(u_j)] | X_j\} = E(u_i | X_i)(u_j | X_j) \text{ (why?)} = 0$$

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 arbitrary 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 arbitrary 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 contribute 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 - Covishield and Covaxin (Dependent Variable) in all the Indian states with 5 Independent Variables - which type of data is the researcher 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