National Testing Agency

Question Paper Name :	Basic Econometrics 25th March 2021 Shift2
Subject Name :	Basic Econometrics
Creation Date :	2021-03-25 22:30:39
Duration :	180
Number of Questions :	100
Total Marks :	100
Display Marks:	Yes

Basic Econometrics

Group Number :	1
Group Id :	512452131
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100
Is this Group for Examiner? :	No

Basic Econometrics-1

Section Id :	512452765
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	100
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	512452767
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 51245211566 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A population has N units. How many different random samples each of size n can be drawn from it using SRSWOR?

1. $N P_n$
2. $N Cn$
3. $\dfrac{N}{n}$
4. $N \cdot n$

Options :

51245234781. 1
51245234782. 2
51245234783. 3
51245234784. 4

Question Number : 2 Question Id : 51245211567 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

If population size = 10000 units and 30% sample is drawn from the population, what will be finite population correction?

1. 3.33
2. 0.30
3. 0.97
4. 0.70

Options :

51245234785. 1
51245234786. 2
51245234787. 3
51245234788. 4

Question Number : 3 Question Id : 51245211568 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Standard error of a statistic is

1. Positive square root of sampling variance of the statistic.
2. Square root of sampling variance of the statistic.
3. Square of variance of the statistic.
4. Sampling variance of the statistic.

Options :

51245234789. 1
51245234790. 2

51245234791. 3
51245234792. 4

Question Number : 4 Question Id : 51245211569 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which one the following statements is true?

1. $V(\bar{y} \text{ prop}) \leq V(\bar{y} \text{ opt}) \leq V(\bar{y} \text{ ran})$
2. $V(\bar{y} \text{ opt}) \leq V(\bar{y} \text{ prop}) \leq V(\bar{y} \text{ ran})$
3. $V(\bar{y} \text{ ran}) \leq V(\bar{y} \text{ opt}) \leq V(\bar{y} \text{ prop})$
4. $V(\bar{y} \text{ opt}) \geq V(\bar{y} \text{ prop}) \geq V(\bar{y} \text{ ran})$

Options :
51245234793. 1
51245234794. 2
51245234795. 3
51245234796. 4

Question Number : 5 Question Id : 51245211570 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

If t_n is an estimator obtained from a sample of size n, and q is the corresponding population parameter then Bias of this estimator is

1. $\theta - t_n$
2. $t_n - \theta$
3. $|t_n - \theta|$
4. $E(t_n) - \theta$

Options :
51245234797. 1
51245234798. 2
51245234799. 3
51245234800. 4

Question Number : 6 Question Id : 51245211571 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Identify a statistic from the given below, *here μ* is unknown parameter

1. $2\bar{X} - 3$
2. $\bar{X} - \mu$
3. $2(\bar{X} + \mu) - 3$
4. $2\bar{X} - \mu$

Options :

51245234801. 1

51245234802. 2

51245234803. 3

51245234804. 4

Question Number : 7 Question Id : 51245211572 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Estimate is

1. A true value of the parameter.
2. A value of the statistic used to estimate the parameter.
3. Always positive.
4. Always integer.

Options :

51245234805. 1

51245234806. 2

51245234807. 3

51245234808. 4

Question Number : 8 Question Id : 51245211573 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Unbiased estimator means

1. Expected value of the statistic which equals to the value of the parameter.
2. Expected value of the statistic divided by sample size   n equals to the value of the parameter.
3. Expected value of the statistic multiplied by sample size n equals to the value of the parameter.
4. Inverse of expected value of the statistic equals to the value of the parameter.

Options :

51245234809. 1

51245234810. 2
51245234811. 3
51245234812. 4

Question Number : 9 Question Id : 51245211574 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

For binomial distribution with n = 7 and p = probability of success , which of the following is a simple hypothesis?

1. $p < 0.3$
2. $0 < p \le 0.3$
3. $0.3 \le p < 1$
4. $p = 0.3$

Options :
51245234813. 1
51245234814. 2
51245234815. 3
51245234816. 4

Question Number : 10 Question Id : 51245211575 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Critical region means a region which

1. Rejects the null hypothesis
2. Accepts the null hypothesis
3. Rejects both null and alternative hypotheses
4. Accepts both null and alternative hypotheses

Options :
51245234817. 1
51245234818. 2
51245234819. 3
51245234820. 4

Question Number : 11 Question Id : 51245211576 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Which of the following statements is true?

1. An unbiased estimator is always an efficient estimator
2. An unbiased estimator is a consistent estimator.
3. An unbiased estimator is a sufficient estimator.
4. An unbiased estimator may or may not be an efficient estimator.

Options :

51245234821. 1
51245234822. 2
51245234823. 3
51245234824. 4

Question Number : 12 Question Id : 51245211577 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Estimation of the parameters by using method of moments can be obtained by

1. Computing sample moments
2. Computing population moments.
3. Equating sample moments by the corresponding population moments.
4. Finding mean and variance from the sample.

Options :

51245234825. 1
51245234826. 2
51245234827. 3
51245234828. 4

Question Number : 13 Question Id : 51245211578 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

For any distribution, maximum likelihood estimator of (if it exists) is _____ .

1. consistent
2. sufficient
3. most efficient
4. All of the above

Options :

51245234829. 1
51245234830. 2
51245234831. 3
51245234832. 4

Question Number : 14 Question Id : 51245211579 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Method of least squares can determine

1. Estimation of parameters
2. Interval estimates.
3. Maximum likelihood estimators.
4. Efficiency of the estimators

Options :

51245234833. 1

51245234834. 2

51245234835. 3

51245234836. 4

Question Number : 15 Question Id : 51245211580 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

If we have two unbiased estimators for the same parameters q, we can determine

1. Efficient parameters for q.
2. Sufficient parameters of q.
3. A class of unbiased estimators for q.
4. Maximum likelihood estimator for q.

Options :

51245234837. 1

51245234838. 2

51245234839. 3

51245234840. 4

Question Number : 16 Question Id : 51245211581 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Critical region for a test is a region such that if a sample point falls inside this region we take a decision

1. To reject the hypothesis
2. To accept the hypothesis.
3. To take additional sample
4. To revise the test.

Options :

51245234841. 1

51245234842. 2
51245234843. 3
51245234844. 4

Question Number : 17 Question Id : 51245211582 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

N P Lemma for testing a simple hypothesis against a simple alternative hypothesis under given conditions decides about

1. Power of the test
2. Best critical Region (BCR)
3. Two types of errors
4. Usefulness of the test

Options :
51245234845. 1
51245234846. 2
51245234847. 3
51245234848. 4

Question Number : 18 Question Id : 51245211583 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Power of a test is defined as

1. Prob. to reject H_0 when H_0 is true
2. Prob. to accept H_0 when H_1 is false
3. Prob. to reject H_0 when H_1 is true
4. Prob. to accept H_0 when H_0 is false

Options :
51245234849. 1
51245234850. 2
51245234851. 3
51245234852. 4

Question Number : 19 Question Id : 51245211584 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Power curve of a test is drawn by

1. Plotting power against size of the test
2. Plotting power against population parameter
3. Plotting power against type II error
4. Plotting power against sample size

Options :
51245234853. 1
51245234854. 2
51245234855. 3
51245234856. 4

Question Number : 20 Question Id : 51245211585 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Relation between power of a test and size of the test is given by

1. $1 - \beta = \alpha$
2. $1 - \beta \leq \alpha$
3. $1 - \beta \geq \alpha$
4. $\beta \geq \alpha$

Options :
51245234857. 1
51245234858. 2
51245234859. 3
51245234860. 4

Question Number : 21 Question Id : 51245211586 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Increasing the sample size has the following effect upon the sampling error ?

1. It increases the sampling error.
2. It reduces the sampling error.
3. It has no effect on the sampling error.
4. All of the above

Options :
51245234861. 1
51245234862. 2
51245234863. 3

51245234864. 4

Question Number : 22 Question Id : 51245211587 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is a test of variable?

1. test for two variances
2. test for single proportion
3. test of goodness of fit
4. test for independence of attributes.

Options :

51245234865. 1

51245234866. 2

51245234867. 3

51245234868. 4

Question Number : 23 Question Id : 51245211588 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In which test chi square distribution is used?

1. test for mean
2. test for two proportions
3. test for two standard deviations
4. test for goodness of fit

Options :

51245234869. 1

51245234870. 2

51245234871. 3

51245234872. 4

Question Number : 24 Question Id : 51245211589 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is an example of hypotheses used in testing a single mean?

1. H: $\sigma = 2$ versus K: $\sigma > 2$
2. H: $\mu = 2$ versus K: $\mu > 2$
3. H: $\mu_1 = \mu_2$ versus K: $\mu_1 > \mu_2$
4. H: $\sigma_1 = \sigma_2$ versus K: $\sigma_1 > \sigma_2$

Options :

51245234873. 1
51245234874. 2
51245234875. 3
51245234876. 4

Question Number : 25 Question Id : 51245211590 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What is the formula of standard error used in testing of single mean?

1. $\frac{s}{\sqrt{n}}$

2. $\frac{s^2}{\sqrt{n}}$

3. $\frac{s}{\sqrt{2n}}$

4. $\frac{s}{\sqrt{n/2}}$

Options :

51245234877. 1
51245234878. 2
51245234879. 3
51245234880. 4

Question Number : 26 Question Id : 51245211591 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which is the correct formula for t statistics in one sample problem?

1. $t = \dfrac{\bar{x} - \mu}{s/\sqrt{n}}$

2. $t = \dfrac{\bar{x} - \mu}{s/\sqrt{2n}}$

3. $t = \dfrac{\bar{x} - \mu}{s^2/\sqrt{n}}$

4. $t = \dfrac{\bar{x} - \mu}{s^2/n}$

Options :

51245234881. 1
51245234882. 2
51245234883. 3
51245234884. 4

Question Number : 27 Question Id : 51245211592 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following statement is true?

1. t distribution is a symmetric distribution
2. t distribution is a discrete distribution
3. t distribution may be a discrete or continuous distribution
4. t distribution is used for large sample

Options :

51245234885. 1
51245234886. 2
51245234887. 3
51245234888. 4

Question Number : 28 Question Id : 51245211593 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What is the relation between f and t statistics?

1. They are same
2. They are different
3. F with 1 and n degrees of freedom is source of t distribution
4. There is no relation between f and t statistics

Options :

51245234889. 1
51245234890. 2
51245234891. 3
51245234892. 4

Question Number : 29 Question Id : 51245211594 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

For large n, t distribution tends to

1. F distribution
2. Normal Distribution
3. Gamma distribution
4. Beta Distribution

Options :

51245234893. 1
51245234894. 2
51245234895. 3
51245234896. 4

Question Number : 30 Question Id : 51245211595 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

F statistics is defined as

1. $F = \dfrac{x_1^2/n_1}{x_2^2/n_2}$

2. $F = x_1^2 \Big/ x_2^2$

3. $F = \dfrac{x_1^2}{x_1^2 + x_2^2}$

4. $F = \dfrac{x_1^2}{x_1^2 - x_2^2}$

Options :

51245234897. 1

51245234898. 2
51245234899. 3
51245234900. 4

Question Number : 31 Question Id : 51245211596 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

$log_e Y = \beta_1 + \beta_2 X + U$ can take values that are

1. Only positive
2. Only negative
3. Only zero
4. All of the above

Options :
51245234901. 1
51245234902. 2
51245234903. 3
51245234904. 4

Question Number : 32 Question Id : 51245211597 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

$E(Y| X_i) = f(X_i)$ is referred to as

1. Conditional expectation function
2. Intercept line
3. Linear Regression Line
4. Population Regression Line

Options :
51245234905. 1
51245234906. 2
51245234907. 3
51245234908. 4

Question Number : 33 Question Id : 51245211598 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In simple linear regression model, the slope

1. Indicates by how many percent Y increases, given a one percent increase in X
2. When multiplied with the explanatory variable will give the predicted y
3. Indicates by how many units Y increases, given a one unit increase in X
4. Represents the elasticity of Y on X

Options :

51245234909. 1
51245234910. 2
51245234911. 3
51245234912. 4

Question Number : 34 Question Id : 51245211599 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In classical linear regression model, X and U are

1. Positively correlated
2. Negatively correlated
3. Highly correlated
4. Uncorrelated

Options :

51245234913. 1
51245234914. 2
51245234915. 3
51245234916. 4

Question Number : 35 Question Id : 51245211600 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In statistics, standard error measures the

1. Precision of an estimate
2. Correlation between X and y
3. Specification error of the model
4. Auto Correlation in the regression model

Options :

51245234917. 1

51245234918. 2
51245234919. 3
51245234920. 4

Question Number : 36 Question Id : 51245211601 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The objective of simple linear regression is :

1. To check the significant difference between Independent Groups
2. To predict Score of Dependent variable
3. To Predict Score of Independent Variable
4. To check the significant difference between Repeated Measures

Options :
51245234921. 1
51245234922. 2
51245234923. 3
51245234924. 4

Question Number : 37 Question Id : 51245211602 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Regression Analysis is inappropriate when

1. The Pattern of Data is Approximately Linear.
2. We want to predict the Independent variable from Dependent Variable
3. Mean value of error is Zero.
4. Variance changes for each u_i. (Heteroskedastic Variance)

Options :
51245234925. 1
51245234926. 2
51245234927. 3
51245234928. 4

Question Number : 38 Question Id : 51245211603 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The Regression line Obtained from regression equation

1. Passes through as many points as possible
2. Passes through few points
3. Minimizes the squared distance from the points
4. Maximizes the squared distance from the points

Options :
51245234929. 1
51245234930. 2
51245234931. 3
51245234932. 4

Question Number : 39 Question Id : 51245211604 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Residue is defined as

1. $Y_i - \widehat{Y_i}$
2. Error sum of Square
3. Regression Sum of Square
4. None of the above

Options :
51245234933. 1
51245234934. 2
51245234935. 3
51245234936. 4

Question Number : 40 Question Id : 51245211605 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The Regression equation of Expense(Y) based on family members(X) is given by Y=12.18+2.37X. Find the expense when there are 4 family members.

1. 21.66
2. 14.53
3. 18.19
4. 24.03

Options :
51245234937. 1
51245234938. 2

51245234939. 3
51245234940. 4

Question Number : 41 Question Id : 51245211606 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The relationship between number of beers consumed (x) and blood alcohol content (y) was studied in 16 male college students by using least squares regression. The following regression equation was obtained from the study $\hat{y} = -0.0127 + 0.0180x$

The above equation implies that:

1. each beer consumed increases blood alcohol by 1.27%
2. on average it takes 1.8 beers to increase blood alcohol content by 1%
3. each beer consumed increases blood alcohol by an average of amount of 1.8%
4. each beer consumed increases blood alcohol by exactly 0.018

Options :
51245234941. 1
51245234942. 2
51245234943. 3
51245234944. 4

Question Number : 42 Question Id : 51245211607 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The range of regression coefficient is

1. -1 to +1
2. 0 to 1
3. $-\infty$ to $+\infty$
4. 0 to ∞

Options :
51245234945. 1
51245234946. 2
51245234947. 3
51245234948. 4

Question Number : 43 Question Id : 51245211608 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In regression analysis, the variable that is being predicted is the

1. Response or dependent variable
2. independent variable
3. intervening variable
4. is usually x

Options :
51245234949. 1
51245234950. 2
51245234951. 3
51245234952. 4

Question Number : 44 Question Id : 51245211609 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In least squares regression, which of the following is not a required assumption about the error term ?

1. The expected value of the error term is one.
2. The variance of the error term is the same for all values of x.
3. The values of the error term are independent.
4. The error term is normally distributed.

Options :
51245234953. 1
51245234954. 2
51245234955. 3
51245234956. 4

Question Number : 45 Question Id : 51245211610 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In a regression and correlation analysis if $r^2 = 1$, then

1. SSE = SST
2. SSE = 1
3. SSR = SSE
4. SSR = SST

Options :

51245234957. 1
51245234958. 2
51245234959. 3
51245234960. 4

Question Number : 46 Question Id : 51245211611 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

For double log linear model $\log Y = \beta_1 + \beta_2 \log X + U$ what is the elasticity?

1. 0
2. 1
3. β_2
4. β_1

Options :
51245234961. 1
51245234962. 2
51245234963. 3
51245234964. 4

Question Number : 47 Question Id : 51245211612 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

If multicollinearity is Perfection regression model, the standard errors of the regression coefficient are :

1. Determinate
2. Indeterminate
3. Infinite Value
4. Small negative values

Options :
51245234965. 1
51245234966. 2
51245234967. 3
51245234968. 4

Question Number : 48 Question Id : 51245211613 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In K variate GLM when the data Matrix X is not a full rank matrix, what will happen?

1. Multicollinearity
2. Autocorrelation
3. Specification error
4. Identification problem

Options :

51245234969. 1
51245234970. 2
51245234971. 3
51245234972. 4

Question Number : 49 Question Id : 51245211614 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In linear model if the data Matrix X is stochastic, what type of estimators are used?

1. OLSE
2. GLSE
3. Stochastic regressors
4. Weighted least squares estimators

Options :

51245234973. 1
51245234974. 2
51245234975. 3
51245234976. 4

Question Number : 50 Question Id : 51245211615 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

For trivariate linear regression model we define R^2 by the formula

1. $R^2 = \dfrac{ESS}{TSS}$

2. $R^2 = R_{1.23}^2 = \dfrac{r_{12}^2 + r_{13}^2 + 2r_{12}r_{13}r_{13}}{1 - r_{23}^2}$

3. $R^2 = 1 + (1 - r_{12}^2)(1 - r_{13\cdot2}^2)$

4. None of the above

Options :

51245234977. 1

51245234978. 2
51245234979. 3
51245234980. 4

Question Number : 51 Question Id : 51245211616 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

A regression model in which β_1 represents the expected percentage change in Y in response to a 1% increase in X_1 is

1. $Y = \beta_0 + \beta_1 X_1 + u$
2. $lnY = \beta_0 + \beta_1 X_1 + u$
3. $Y = \beta_0 + \beta_1 lnX_1 + u$
4. $lnY = \beta_0 + \beta_1 lnX_1 + u$

Options :
51245234981. 1
51245234982. 2
51245234983. 3
51245234984. 4

Question Number : 52 Question Id : 51245211617 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The following equation Y=a+b (1/X)+error is called

1. Reciprocal functional relation
2. Non linear relation
3. Multiple regression equation
4. Linear regression equation

Options :
51245234985. 1
51245234986. 2
51245234987. 3
51245234988. 4

Question Number : 53 Question Id : 51245211618 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

For Y= ab^X, its log arithmetic transformation is given by

1. Y= log a + X log b
2. log Y =log a + X log b
3. log Y =log a + b log X
4. None of the above are correct.

Options :

51245234989. 1
51245234990. 2
51245234991. 3
51245234992. 4

Question Number : 54 Question Id : 51245211619 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Y = A + bx + cx^2 expresses a relation called

1. Mathematical equation of second degree parabola
2. Curvilinear regression
3. Non linear regression
4. Regression equation

Options :

51245234993. 1
51245234994. 2
51245234995. 3
51245234996. 4

Question Number : 55 Question Id : 51245211620 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

For Y = Ke^{bx} the log arithmetic given below is correct for a transmission given below is

1. Log Y = log K – e bx
2. Log Y = log K + ebx
3. loge Y = Log e k + bx
4. Y = log k + log bx

Options :

51245234997. 1

51245234998. 2
51245234999. 3
51245235000. 4

Question Number : 56 Question Id : 51245211621 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Multiple regression analysis is used when

1. There is not enough data to carry out simple linear regression analysis.
2. The dependent variable depends on more than one independent variable.
3. One or more of the assumptions of simple linear regression are not correct.
4. The relationship between the dependent variable and the independent variables cannot be described by a linear function.

Options :

51245235001. 1
51245235002. 2
51245235003. 3
51245235004. 4

Question Number : 57 Question Id : 51245211622 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The intercept in the multiple regression model

1. Should be excluded if one explanatory variable has negative values.
2. Determines the height of the regression line.
3. Should be excluded because the population regression function does not go through the origin.
4. Is statistically significant if it is larger than 1.96.

Options :

51245235005. 1
51245235006. 2
51245235007. 3
51245235008. 4

Question Number : 58 Question Id : 51245211623 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In multiple linear regression, the coefficients of the independent variables are:

1. The Pearson correlations between the independent variables and the criterion
2. Known as partial regression coefficients
3. The partial correlations between the independent variables and the criterion
4. Known as semi partial regression coefficients

Options :

51245235009. 1

51245235010. 2

51245235011. 3

51245235012. 4

Question Number : 59 Question Id : 51245211624 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In multiple linear regression, the multiple correlation coefficient R is:

1. The Pearson correlation between the scores on the criterion and the predictions from the regression equation
2. The square of the Pearson correlation between the scores on the criterion and the predictions from the regression equation
3. The average of the correlations between the independent variables and the criterion
4. The entire set of correlations between the criterion and the independent variables

Options :

51245235013. 1

51245235014. 2

51245235015. 3

51245235016. 4

Question Number : 60 Question Id : 51245211625 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The multiple correlation coefficient R:

1. Can vary within the range from — 1 to +1, inclusive
2. Can be less than the correlation between some of the independent variables and the criterion
3. Can vary within the range from 0 to +1, inclusive
4. Cannot achieve an absolute value of unity

Options :

51245235017. 1
51245235018. 2
51245235019. 3
51245235020. 4

Question Number : 61 Question Id : 51245211626 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Which one of the following is qualitative variable?

1. Profit per month
2. Regions of Sales
3. Age of sales-man
4. Production of the units

Options :

51245235021. 1
51245235022. 2
51245235023. 3
51245235024. 4

Question Number : 62 Question Id : 51245211627 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Which one of the following is quantitative variable?

1. Income category
2. Regions of Sales
3. Gender of sales-man
4. Units sold per month

Options :

51245235025. 1

51245235026. 2
51245235027. 3
51245235028. 4

Question Number : 63 Question Id : 51245211628 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

How many dummy variables are used for gender of a person?

1. 1
2. 2
3. 3
4. 4

Options :
51245235029. 1
51245235030. 2
51245235031. 3
51245235032. 4

Question Number : 64 Question Id : 51245211629 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

How many dummy variables are used for denoting the three seasons?

1. 1
2. 2
3. 3
4. 4

Options :
51245235033. 1
51245235034. 2
51245235035. 3
51245235036. 4

Question Number : 65 Question Id : 51245211630 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In the following regression equation identify the intercept.

$Y = -2 + 3X$

1. 2
2. -2
3. 3
4. -3

Options :

51245235037. 1
51245235038. 2
51245235039. 3
51245235040. 4

Question Number : 66 Question Id : 51245211631 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

If a quantitative variable has m categories we can introduce

1. Only m dummy variables
2. Only m – 1 dummy variables
3. Only m + 1 dummy variables
4. None of the above

Options :

51245235041. 1
51245235042. 2
51245235043. 3
51245235044. 4

Question Number : 67 Question Id : 51245211632 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Dummy variables can take

1. Only 0 and 1 value
2. Any positive value
3. Any linear transformation of 0 and 1 such as c = a + bDI where b ≠ 0, and DI is either 0 or 1.
4. Any inters value

Options :

51245235045. 1
51245235046. 2
51245235047. 3
51245235048. 4

Question Number : 68 Question Id : 51245211633 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Dummy variables classify the data into

1. Inclusive categories
2. Mutually exclusive categories
3. Qualitative categories
4. Quantitative categories

Options :

51245235049. 1
51245235050. 2
51245235051. 3
51245235052. 4

Question Number : 69 Question Id : 51245211634 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Dummy variables are the variables of the type

1. Ratio Scale
2. Interval Scale
3. Ordinal Scale
4. Nominal Scale

Options :

51245235053. 1
51245235054. 2
51245235055. 3
51245235056. 4

Question Number : 70 Question Id : 51245211635 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

ANOVA models include

1. Only Quantitative Variables
2. Only Qualitative Variables
3. Only Categorical Variables
4. Both Qualitative and Quantitative Variables

Options :

51245235057. 1
51245235058. 2
51245235059. 3
51245235060. 4

Question Number : 71 Question Id : 51245211636 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In the problem of prediction in linear models the linear prediction is _____.

1. Unbiased
2. Biased
3. Consistent
4. Unreliable

Options :

51245235061. 1
51245235062. 2
51245235063. 3
51245235064. 4

Question Number : 72 Question Id : 51245211637 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In linear models, the ratio of prediction error to the estimated value of standard error of prediction is _____statistic.

1. F
2. Normal
3. t
4. Chi square

Options :

51245235065. 1
51245235066. 2
51245235067. 3
51245235068. 4

Question Number : 73 Question Id : 51245211638 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

One of the assumptions of GLM is that the number of observations in the sample must be greater than the number of

1. Regressands
2. Dependent variable
3. Dependent and independent variables
4. Regressor

Options :
51245235069. 1
51245235070. 2
51245235071. 3
51245235072. 4

Question Number : 74 Question Id : 51245211639 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

An example of perfect multicollinearity is cubic cost function .This statement is

1. False
2. True
3. Depend upon economic theory
4. Depend upon the functional form

Options :
51245235073. 1
51245235074. 2
51245235075. 3
51245235076. 4

Question Number : 75 Question Id : 51245211640 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Under perfect multicollinearity, the regression coefficients of the explanatory variables are

1. Determinate
2. Indeterminate
3. Infinite values
4. Small and negative values

Options :

51245235077. 1
51245235078. 2
51245235079. 3
51245235080. 4

Question Number : 76 Question Id : 51245211641 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Heteroscadastcity means that

1. All X variables cannot be homogeneous
2. Observed units have no relation
3. X and Y are not co-related
4. The variance of error term is not constant

Options :

51245235081. 1
51245235082. 2
51245235083. 3
51245235084. 4

Question Number : 77 Question Id : 51245211642 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Estimating the regression model in the presence of homogeneous using method leads to BLUE

1. OLS
2. GLS
3. MLE
4. Two stage regression

Options :

51245235085. 1
51245235086. 2
51245235087. 3
51245235088. 4

Question Number : 78 Question Id : 51245211643 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Heteroscadastcity is more likely a problem of

1. Cross section data
2. Time series data
3. Pooled data
4. All of the above

Options :
51245235089. 1
51245235090. 2
51245235091. 3
51245235092. 4

Question Number : 79 Question Id : 51245211644 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Under Spearman's rank correlation coefficient for testing heteroscadastcity, the null hypothesis to be tested is

1. There is no heteroscadastcity in the sample data
2. There is heteroscadastcity in the sample data
3. There is positive heteroscadastcity in the sample data
4. There is negative heteroscadastcity in the sample data

Options :
51245235093. 1
51245235094. 2
51245235095. 3
51245235096. 4

Question Number : 80 Question Id : 51245211645 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The following remedial measure is used for the problem of heteroscadastcity when σ_i^2 is known for the given regression model

1. OLS method
2. GLS method
3. Weighted Least Squares method
4. Koenkar-Bassett method

Options :

51245235097. 1

51245235098. 2

51245235099. 3

51245235100. 4

Question Number : 81 Question Id : 51245211646 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

When error terms across the time series data are inter correlated, it is known as

1. Cross autocorrelation
2. Cross correlation
3. Serial correlation
4. None of the above

Options :

51245235101. 1

51245235102. 2

51245235103. 3

51245235104. 4

Question Number : 82 Question Id : 51245211647 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The regression coefficients estimated in the presence of autocorrelation in the sample data are not

1. Unbiased estimators
2. Efficient estimators
3. Consistent estimators
4. Linear estimators

Options :

51245235105. 1
51245235106. 2
51245235107. 3
51245235108. 4

Question Number : 83 Question Id : 51245211648 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The regression of U_t on itself with lagged one period is referred to as

1. White noise model
2. AR (2) model
3. Coefficient of auto covariance model
4. AR (1) model

Options :

51245235109. 1
51245235110. 2
51245235111. 3
51245235112. 4

Question Number : 84 Question Id : 51245211649 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

If in the regression model, one of the explanatory variables included is the lagged value of the dependent variable, then the model is referred to as

1. Dynamic model
2. First difference form
3. Auto regressive model
4. Best fitted model

Options :
51245235113. 1
51245235114. 2
51245235115. 3
51245235116. 4

Question Number : 85 Question Id : 51245211650 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The Durbin Watson statistic lies in the interval

1. 0 to 4
2. 0 to 1
3. 0 to 2
4. 2 to 4

Options :
51245235117. 1
51245235118. 2
51245235119. 3
51245235120. 4

Question Number : 86 Question Id : 51245211651 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a cause for model specification errors?

1. Omitting a relevant variable
2. Including an irrelevant variable
3. Measurement errors bias
4. Correct functional form

Options :

51245235121. 1
51245235122. 2
51245235123. 3
51245235124. 4

Question Number : 87 Question Id : 51245211652 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The coefficient of the over fitted model would be.

1. Inefficient coefficient
2. Biased coefficient
3. Inconsistent coefficient
4. None of the above

Options :
51245235125. 1
51245235126. 2
51245235127. 3
51245235128. 4

Question Number : 88 Question Id : 51245211653 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

One of these is not a test of specification errors

1. Durbin Watson d test
2. Ramsey's Reset test
3. Lagrange's multiplier test
4. David – Mackinnon test

Options :
51245235129. 1
51245235130. 2
51245235131. 3
51245235132. 4

Question Number : 89 Question Id : 51245211654 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The coefficient of the under fitted model is.

1. Biased coefficient
2. Inconsistent coefficient
3. Inefficient coefficient
4. All of the above

Options :
51245235133. 1
51245235134. 2
51245235135. 3
51245235136. 4

Question Number : 90 Question Id : 51245211655 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

When Specification error may be caused due to not knowing the true regression model to begin with, such an error is called

1. Model specification error
2. Model misspecification error
3. Wrong functional form error
4. Measurement error

Options :
51245235137. 1
51245235138. 2
51245235139. 3
51245235140. 4

Question Number : 91 Question Id : 51245211656 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

A regression model that includes both the current and past values of the explanatory variable is called

1. Autoregressive model
2. Fixed effect model
3. Linear time series model
4. Distributed lag model

Options :

51245235141. 1
51245235142. 2
51245235143. 3
51245235144. 4

Question Number : 92 Question Id : 51245211657 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

A regression model which includes the lagged values of the dependent variable among its explanatory variables is called

1. DL model
2. Fixed effect model
3. Autoregressive model
4. None of the above

Options :
51245235145. 1
51245235146. 2
51245235147. 3
51245235148. 4

Question Number : 93 Question Id : 51245211658 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The method used to correct for autocorrelation when ρ is not known is called

1. DW test
2. GLS
3. Cocharan – Orcutt iterative procedure
4. None of the above

Options :
51245235149. 1
51245235150. 2
51245235151. 3
51245235152. 4

Question Number : 94 Question Id : 51245211659 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Theil –Nagar formula is useful for determining the estimator of

1. Partial correlation coefficient
2. Auto correlation coefficient
3. Multiple coefficient of determination
4. None of the above

Options :

51245235153. 1
51245235154. 2
51245235155. 3
51245235156. 4

Question Number : 95 Question Id : 51245211660 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Auto correlation can be detected graphically by

1. Plotting Y value against X values
2. Plotting error terms against X values
3. Plotting error terms against time
4. Plotting error terms against Y values

Options :

51245235157. 1
51245235158. 2
51245235159. 3
51245235160. 4

Question Number : 96 Question Id : 51245211661 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In obtaining Weighted Least Squares estimators, if all the weights are equal then it is

1. Homoscadasticity
2. Heteroscadasticity
3. Prediction problem
4. All of the above

Options :

51245235161. 1

51245235162. 2
51245235163. 3
51245235164. 4

Question Number : 97 Question Id : 51245211662 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Glejser test for detecting heteroscadasticity is carried out by

1. Single regression
2. Two stage regression
3. Multistage regression
4. All the three above

Options :
51245235165. 1
51245235166. 2
51245235167. 3
51245235168. 4

Question Number : 98 Question Id : 51245211663 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Heteroscadasticity arises in the model when

1. Model is not clearly specified.
2. Error variance in simple data is zero.
3. Efficiency of the system increases.
4. Data matrix X is fixed.

Options :
51245235169. 1
51245235170. 2
51245235171. 3
51245235172. 4

Question Number : 99 Question Id : 51245211664 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Reordering of observations with respect to the explanatory variable is the very first step in conducting the following test for heteroscadasticity.

1. Park Test
2. Whites general test
3. Goldfield- Quandt test
4. Spearman's rank test

Options :
51245235173. 1
51245235174. 2
51245235175. 3
51245235176. 4

Question Number : 100 Question Id : 51245211665 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Park test is a :

1. One stage procedure
2. Multi stage procedure
3. Generalized least squares procedure
4. Two stage procedure

Options :
51245235177. 1
51245235178. 2
51245235179. 3
51245235180. 4