



Free Questions for 8007 by actualtestdumps

Shared by Garrison on 20-10-2022

For More Free Questions and Preparation Resources

Check the Links on Last Page

Question 1

Question Type: MultipleChoice

The gradient of a smooth function is

Options:

- A-** a vector that shows the direction of fastest change of a function
- B-** matrix of second partial derivatives of a function
- C-** infinite at a maximum point
- D-** a matrix containing the function's second partial derivatives

Answer:

A

Question 2

Question Type: MultipleChoice

Consider a binomial lattice where a security price S moves up by a factor u with probability p , or down by a factor d with probability $1 - p$. If we set $d > 1/u$ then which of the following will be TRUE?

Options:

- A- The lattice will not recombine
- B- The probability of an up move will not be constant
- C- There will always be a downward drift in the lattice
- D- None of the above

Answer:

D

Question 3

Question Type: MultipleChoice

Newton-Raphson iteration is used to find a solution of $x^5 - x^3 + x = 1$. If $x_n = 2$, what is x_{n+1} ?

Options:

A- 2.362

B- 1.623

C- 1.638

D- 0.377

Answer:

C

Question 4

Question Type: MultipleChoice

What can be said about observations of random variables that are i.i.d. a normally distributed?

Options:

A- The estimated mean divided by the estimated variance has a t-distribution

- B- The estimated mean divided by the estimated variance has a Chi2-distribution
- C- The estimated mean divided by the estimated standard deviation has a t-distribution
- D- The estimated mean divided by the estimated standard deviation has a Chi2-distribution

Answer:

C

Question 5

Question Type: MultipleChoice

You are to perform a simple linear regression using the dependent variable Y and the independent variable X ($Y = a + bX$). Suppose that $\text{cov}(X,Y)=10$, $\text{var}(X)= 5$, and that the mean of X is 1 and the mean of Y is 2. What are the values for the regression parameters a and b ?

Options:

- A- $b=0.5$, $a=2.5$
- B- $b=0.5$, $a=1.5$
- C- $b=2$, $a=4$

D- $b=2$, $a=0$

Answer:

D

Question 6

Question Type: MultipleChoice

Which of the following can be used to evaluate a regression model?

- (i) Magnitude of R^2
- (ii) Magnitude of TSS (total sum of squares)
- (iii) Tests for statistical significance
- (iv) Sign and magnitude of each regression parameter

Options:

A- (i) and (iv)

B- (i), (ii), and (iii)

C- (i), (iii), and (iv)

D- (i), (ii), (iii), and (iv)

Answer:

C

Question 7

Question Type: MultipleChoice

A 95% confidence interval for a parameter estimate can be interpreted as follows:

Options:

A- The probability that the real value of the parameter is within this interval is 95%.

B- The probability that the real value of the parameter is outside this interval is 95%.

C- The probability that the estimated value of the parameter is within this interval is 95%.

D- The probability that the estimated value of the parameter is outside this interval is 95%.

Answer:

A

Question 8

Question Type: MultipleChoice

In statistical hypothesis tests, 'Type I error' refers to the situation in which...

Options:

- A-** The null hypothesis is accepted when in fact it should have been rejected
- B-** The null hypothesis is rejected when in fact it should have been accepted
- C-** Both null hypothesis and alternative hypothesis are rejected
- D-** Both null hypothesis and alternative hypothesis are accepted

Answer:

B

Question 9

Question Type: MultipleChoice

Which of the following statements are true about Maximum Likelihood Estimation?

- (i) MLE can be applied even if the error terms are not i.i.d. normal.
- (ii) MLE involves integrating a likelihood function or a log-likelihood function.
- (iii) MLE yields parameter estimates that are consistent.

Options:

A- (i) and (ii)

B- (i) only

C- (i) and (iii)

D- (i), (ii), and (iii)

Answer:

C

Question 10

Question Type: MultipleChoice

Exploring a regression model for values of the independent variable that have not been observed is most accurately described as...

Options:

- A- Estimation
- B- Regression
- C- Hypothesis testing
- D- Prediction

Answer:

D

Question 11

Question Type: MultipleChoice

In a multiple linear regression, the significance of R^2 can be tested using which distribution?

Options:

- A- Normal distribution
- B- Student's t distribution
- C- F-distribution
- D- Binomial distribution

Answer:

C

Question 12

Question Type: MultipleChoice

You want to test the hypothesis that a population parameter of a regression model is zero. Your alternative hypothesis is that $\beta_j \neq 0$. Denote by $SE(\hat{\beta}_j)$ the estimated standard deviation of $\hat{\beta}_j$, and by $MEAN(\hat{\beta}_j)$ the estimated mean of $\hat{\beta}_j$. Which test statistic is appropriate, and what is its distribution?

Options:

A- test statistic = $SD()/MEAN()$, normal distribution

B- test statistic = $MEAN()/SD()$, normal distribution

C- test statistic = $SD()/MEAN()$, t distribution

D- test statistic = $MEAN()/SD()$, t distribution

Answer:

D

To Get Premium Files for 8007 Visit

<https://www.p2pexams.com/products/8007>

For More Free Questions Visit

<https://www.p2pexams.com/prmia/pdf/8007>

