DUMPSARENA

PRM Certification - Exam II: Mathematical Foundations of Risk Measurement

PRMIA 8002

Version Demo

Total Demo Questions: 10

Total Premium Questions: 132

Buy Premium PDF

https://dumpsarena.co

sales@dumpsarena.co

sales@dumpsarena.co
dumpsarena.co

QUESTION NO: 1

Let X be a random variable normally distributed with zero mean and let . Then the correlation between X and Y is:

A. negative

B. zero

C. not defined

D. positive

ANSWER: B

QUESTION NO: 2

What is the total derivative of the function f(x,y) = ln(x+y), where ln() denotes the natural logarithmic function?

A. 1 / (x+y)

B. (Δx + Δy) / (x+y)

C. -Δx/(x+y) - Δy/(x+y)

D. ln(x+y) Δx + ln(x+y) Δy

ANSWER: B

QUESTION NO: 3

The first derivative of a function f(x) is zero at some point, the second derivative is also zero at this point. This means that:

A. f has necessarily a minimum at this point

B. f has necessarily a maximum at this point

C. f has necessarily neither a minimum nor a maximum at this point

D. f might have either a minimum or a maximum or neither of them at this point

ANSWER: D

QUESTION NO: 4

You invest $100 000 for 3 years at a continuously compounded rate of 3%. At the end of 3 years, you redeem the investment. Taxes of 22% are applied at the time of redemption. What is your approximate after-tax profit from the investment, rounded to $10?

A. $9420

B. $7350

C. $7230

D. $7100

ANSWER: B

QUESTION NO: 5

An underlying asset price is at 100, its annual volatility is 25% and the risk free interest rate is 5%. A European put option has a strike of 105 and a maturity of 90 days. Its Black-Scholes price is 7.11. The options sensitivities are: delta = -0.59; gamma = 0.03; vega = 19.29. Find the delta-gamma approximation to the new option price when the underlying asset price changes to 105

A. 6.49

B. 5.03

C. 4.59

D. 4.54

ANSWER: D

QUESTION NO: 6

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?

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 NO: 7

An asset price S is lognormally distributed if:

A. the change in price (dS) is normally distributed

B. 1/S is normally distributed

C. ln(dS/S) is normally distributed

D. ln(1+dS/S) is normally distributed

ANSWER: D

QUESTION NO: 8

A linear regression gives the following output:

Figures in square brackets are estimated standard errors of the coefficient estimates. What is the value of the test statistic for the hypothesis that the coefficient of is zero against the alternative that is less than zero?

A. 0.125

B. 2.5

C. -1.25

D. -2.5

ANSWER: D

QUESTION NO: 9

A quadratic form is

A. defined as a positive definite Hessian matrix.

B. an algebraic expression in two variables, x and y, involving , and terms.

C. a specific solution of the Black-Scholes pricing formula

D. an algebraic expression in two variables, x and y, involving , , and terms.

ANSWER: B

QUESTION NO: 10

The bisection method can be used for solving f(x)=0 for a unique solution of x, when

A. The function f(x) is continuous and monotonic

B. The function f(x) is differentiable

C. The function f(x) is differentiable and we have an explicit expression for the derivative

D. The function f(x) is continuous

ANSWER: A