# **MGT611**



# Question 1: Can risk be completely eliminated if we add more and more stock to portfolio? Justify your answer with reasons.

#### Answer:

Yes risk can be eliminated if we add more and more stock to portfolio. For example loss from security A can be set off from profit of security B, similarly loss from security A and B can be minimized from profit of security C and D.

Question 2: Correlation coefficient, variance of stock's return and variance of market return were given and it was to find Covariance.

#### Question 3: Define a zero coupon bond?

Answer:

A zero coupon bond has a specific maturity date when it returns the bond principal, but it pays no periodic income. In other words, the bond has only a single cash inflow the par value returned at maturity.

## Question 4: Define Bar chart

## Question 5: Define call options.

Answer:

A call option, often it is simply labeled a "call", is a financial contract between two parties, the buyer and the seller of this type of option.

## Question 6: Define covariance. What does covariance shows?

Answer:

Covariance is defined as the extent to which two random variables covary (move together) over time. Covariance shows A statistical measure of the variance of two random variables that are observed or measured in the same mean time period. This measure is equal to the product of the deviations of corresponding values of the two variables from their respective means.

Question 7: Define short selling and describe the procedure of short selling in detail.

# Question 8: Describe how bond duration is related to coupons?

Answer:

Duration expands with time to maturity but at a decreasing rate (holding the size of coupon payments and the yield to maturity constant particularly beyond 15 years time to maturity). Even between 5 and 10 years time to maturity, duration is expanding at a significantly lower rate than in the case of a time to maturity of up to 5 years, where it expands rapidly. Note that for all coupon-paying bonds, duration is always less than maturity. For a zero-coupon bond, duration is equal -to time to maturity.

Yield to maturity is inversely related to duration (holding coupon payments and maturity constant).

Coupon is inversely related to duration (holding maturity and yield to maturity constant). This is logical, because higher coupons lead to quicker recovery of the bond's value, resulting in a shorter duration, relative to lower coupons.

--or--

#### Duration

The term duration has a special meaning in the context of bonds. It is a measurement of how long, in