

Q-1. An investor purchases a nine-year, 7% annual coupon payment bond at a price equal to par value. After the bond is purchased and before the first coupon is received, interest rates increase to 8%. The investor sells the bond after five years. Assume that interest rates remain unchanged at 8% over the five-year holding period. Assuming that all coupons are reinvested over the holding period, the investor's five-year horizon yield is closest to:

- A. 5.66%.
- B. 6.62%.
- C. 7.12%.

Q-2. The coupon reinvestment risk just offsets the market price risk when the holding period for a bond equals to:

- A. Duration gap.
- B. Modified duration.
- C. Macaulay duration.

Q-3. An investor buys a 6% annual payment bond with three years to maturity. The bond has a yield-to-maturity of 8% and is currently priced at 94.845806 per 100 of par. The bond's Macaulay duration is closest to:

- A. 2.62.
- B. 2.78.
- C. 2.83.

Q-4. Consider the following statements about non-callable bonds.

Statement 1: "For non-callable bonds, duration provides only a linear approximation of a bond's price changes as interest rates change."

Statement 2: "Incorporating convexity into the analysis of a non-callable bond's price changes as interest rates change always results in higher bond price estimates than derived by using only the bond's duration. This is true whether interest rates increase or decrease."

Are the statements *most likely* correct or incorrect?

- A. Both statements are correct
- B. Statement 1 is incorrect, but Statement 2 is correct
- C. Statement 1 is correct, but Statement 2 is incorrect

Q-5. A bond with a par value of \$100 matures in 10 years with a coupon of 4.5% paid semiannually; it is priced to yield 5.83% and has a modified duration of 7.91. If the yield of the bond declines by 0.26%, the approximate percentage price change for the bond is closest to:

- A. 0.88%.
- B. 2.06%.
- C. 2.91%.