

MAP 4170
Test 6

Name: _____
November 19, 2007

All problems are worth 10 points. Show work for full credit.

1. Bryan buys a $2n$ -year 1000 par value bond with 7.2% annual coupons at a price P . The price assumes an annual effective yield of 12%. At the end of n years, the book value of the bond, X , is 45.24 greater than the purchase price, P . Assume $v_{.12}^n < 0.5$. Calculate X .

- (A) 645
- (B) 652
- (C) 659
- (D) 666
- (E) 675

2. A 10,000 par value bond with 6% semiannual coupons is being sold 3 years and 2 months before the bond matures. The purchase will yield 8% convertible semiannually to the buyer. Determine the price of the bond.

- (A) 9400
- (B) 9450
- (C) 9550
- (D) 9650
- (E) 9850

3. Betty buys an n -year 1000 par value bond with 6.5% annual coupons at a price of 798.48. The price assumes an annual effective yield rate of i . The total write-up in book value of the bond during the first 3 years after purchase is 22.50.

Calculate i .

- (A) 8.50%
- (B) 8.75%
- (C) 9.00%
- (D) 9.25%
- (E) 9.50%

4. A 1000 par value n -year bond maturing at par with annual coupons of 100 is purchased for 1125. The present value of the redemption value is 500.

Find n .

- (A) 5
- (B) 6
- (C) 7
- (D) 8
- (E) 9

5. A 40-year 10,000 par value bond that pays 6% annual coupons matures at par. It is bought to yield 4% for the first 20 years and 5% thereafter. Calculate the amount for amortization of premium during the 10th year.

- (A) 95
- (B) 98
- (C) 101
- (D) 105
- (E) 110