

ANSWER OUTLINE

ECONOMICS 353

L. Tesfatsion/Fall 05

EXERCISE 5: Eight Questions (1 Point Each)

DUE: Tues, Sept 27, 2005, 2:10pm

****IMPORTANT REMINDER: LATE ASSIGNMENTS WILL NOT BE ACCEPTED
– NO EXCEPTIONS****

EXERCISE INSTRUCTIONS:

- (1) Please **fill in your name and student ID number** on Side 1 of your bubble sheet and write **353 Exercise 5** in the top margin of Side 1.
- (2) Use a number 2 pencil to **mark your answers** on Side 1 of the bubble sheet to the EIGHT QUESTIONS Q1 through Q8, below, ALL of which are in multiple choice format.
- (3) There is no Web Exercise for this fifth exercise assignment.
- (4) Each question Q1 through Q8 is worth 1 point.

Q1 (1 point). A BORROWER acquires ____ by ____.

- A. profits; buying a newly issued debt instrument.
- B. temporary additional purchasing power; issuing and selling a debt instrument.
- C. additional net worth; buying a newly issued equity instrument.
- D. liabilities; buying financial assets in secondary markets.

Q2 (1 Point). Which of the following statements are true for FIXED PAYMENT LOANS?

- A. Installment loans and mortgages are frequently of the fixed payment type.
- B. The borrower repays the entire loan by making the same fixed payment in every payment period up to and including the maturity date.
- C. The borrower makes a fixed interest payment in every payment period until the maturity date, at which time the borrower also pays the face value.
- D. Both A and C above.
- E. Both A and B above.

Q3 (1 Point). The COUPON RATE on a coupon bond with a purchase price of \$80, a \$100 face value, annual coupon payments of \$10, and a 2-year maturity is defined to be

- A. the coupon payment \$10 divided by the face value \$100.
- B. total coupon payments \$20 divided by the maturity 2.
- C. the coupon payment \$10 divided by the purchase price \$80.
- D. one coupon payment per year.

Q4 (1 Point). Letting “ * ” denote multiplication, if the annual interest rate is 5 percent, then the PRESENT VALUE TODAY of a payment stream (\$60, \$30) with \$60 to be received at the end of the first year and \$30 to be received at the end of the second year is given by

- A. $\$60 * (1 + 0.05) + \$30 * (1 + 0.05)^2$
- B. $\$60/(1 + 0.05) + \$30/(1 + 0.05)$
- C. $\$60/(1 + 0.05) + \$30/(1 + 0.05)^2$
- D. $[\$60 + \$30]/(1 + 0.05)^2$

Q5 (1 Point). The (ANNUAL) YIELD TO MATURITY i on a COUPON BOND with a purchase price \$450, a face value \$500, a 3-year coupon payment stream (\$30, \$40, \$50), and a 3-year maturity is calculated as follows:

- A. i equals the annual interest rate that, when used to calculate the present value of the income stream (\$30, \$40, \$50), results in a present value equal to \$500.
- B. i equals the annual interest rate that, when used to calculate the present value of the income stream (\$30, \$40, \$550), results in a present value equal to \$450.
- C. i equals the annual interest rate that, when used to calculate the present value of the income stream (\$30, \$40, \$550), results in a present value equal to \$500.
- D. i equals the annual interest rate that, when used to calculate the present value of the income stream (\$30, \$40, \$50), results in a present value equal to \$450.

**SEE THE FOLLOWING PAGE FOR
Q6 THROUGH Q8**

Q6 (1 Point). The CURRENT YIELD on a COUPON BOND with a purchase price of \$75, a \$90 face value, an annual coupon payment of \$5, and a 4-year maturity is defined to be

- A. the present value of all coupon payments.
- B. the coupon payment \$5 divided by the face value \$90.
- C. the coupon payment \$5 divided by the purchase price \$75.
- D. the present value of all payments (coupon payments plus face value).

Q7 (1 Point). For a coupon bond with a given coupon payment C and face value F , its current yield is a MORE accurate measure of its yield to maturity the _____ the maturity of the bond (all else equal) and the _____ the deviation of its purchase price from its face value (all else equal).

- A. shorter; greater
- B. longer; smaller
- C. longer; greater
- D. shorter; smaller

Q8 (1 Point). Which of the following are true statements for a coupon bond whose purchase price at time t is $P(t)$ and whose maturity date is $t+k$ for some integer k GREATER than 1:

- A. The return rate on the coupon bond from time t to time $t+1$ can be expressed as the sum of its current yield and its rate of capital gain or loss from t to $t+1$.
- B. Measured from time t to time $t+1$, the return rate on the coupon bond will be GREATER than its current yield if the purchase price $P(t)$ DECREASES between t and $t+1$.
- C. Measured from time t to time $t+1$, the return rate on the coupon bond will be GREATER than its current yield if the purchase price $P(t)$ INCREASES between t and $t+1$.
- D. Only A and B above.
- E. Only A and C above.