Question #1 of 50

Question ID: 1574200

A bond with a 12% annual coupon, 10 years to maturity and selling at 88 percent of par has a yield to maturity of:

A) between 10% and 12%.

B) between 13% and 14%.

C) over 14%.

Explanation

PMT = 12; N = 10; PV = -88; FV = 100; CPT → I = 14.3

(Module 54.1, LOS 54.a)

Question #2 of 50

Question ID: 1574230

An annual-pay, 4% coupon, 10-year bond has a yield to maturity of 5.2%. If the price of this bond is unchanged two years later, its yield to maturity at that time is:

A) 5.2%.

B) less than 5.2%.

C) greater than 5.2%.

Explanation

This bond is priced at a discount to par value because its 4% coupon is less than its 5.2% yield to maturity. As the bond gets closer to maturity, the discount will amortize toward par value, which means its price will increase if its yield remains unchanged. For its price to remain unchanged, its yield would have to increase.

Price with 10 years to maturity:

N = 10; I/Y = 5.2; PMT = 40; FV = 1,000; CPT PV = –908.23

Yield with 8 years to maturity:

N = 8; PMT = 40; FV = 1,000; PV = –908.23; CPT I/Y = 5.446%

(Module 54.1, LOS 54.b)

Question #3 of 50

Question ID: 1574233

An analyst wants to estimate the yield to maturity on a non-traded 4-year, annual pay bond rated A. Among actively traded bonds with the same rating, 3-year bonds are yielding 3.2% and 6-year bonds are yielding 5.0%. Using matrix pricing the analyst should estimate a YTM for the non-traded bond that is *closest* to:

A) 3.6%. ✗

B) 3.8%. ✓

C) 4.1%. ✗

Explanation

Interpolating: 3.2% + [(4 – 3) / (6 – 3)] × (5.0% – 3.2%) = 3.8%

(Module 54.1, LOS 54.c)

Question #4 of 50

Question ID: 1574227

Other things equal, for option-free bonds:

A) a bond's value is more sensitive to yield increases than to yield decreases. ✗

B) the value of a long-term bond is more sensitive to interest rate changes than the value of a short-term bond. ✓

C) the value of a low-coupon bond is less sensitive to interest rate changes than the value of a high-coupon bond. ✗

Explanation

Long-term, low-coupon bonds are more sensitive than short-term and high-coupon bonds. Prices are more sensitive to rate decreases than to rate increases (duration rises as yields fall).

(Module 54.1, LOS 54.b)

Question #5 of 50

Question ID: 1574204

A bond with three years to maturity pays an annual coupon of 6%. Assuming a yield to maturity of 7%, the price as a percent of par *closest* to:

A) 102.67.

B) 97.38.

C) 92.03.

Explanation

This value is computed as follows:

$$\text{Present Value} = 6/1.07 + 6/1.07^2 + 106/1.07^3 = 97.38$$

Using the calculator:

I/Y = 7; FV = 100; N = 3; PMT = 6; CPT → PV = $97.38

(Module 54.1, LOS 54.a)

Question #6 of 50

Question ID: 1576460

Assume a bond's quoted price is 105.22 and the accrued interest is $3.54. The bond has a par value of $100. What is the bond's *clean* price?

A) $108.76.

B) $101.68.

C) $105.22.

Explanation

The clean price is the bond price without the accrued interest so it is equal to the quoted price.

(Module 54.1, LOS 54.a)

Question #7 of 50

Question ID: 1574197

What value would an investor place on a 20-year, $1,000 face value, 10% annual coupon bond, if the investor required a 9% rate of return?

A) $879.

B) $920.

C) $1,091.

Explanation

N = 20; I/Y = 9; PMT = 100 (0.10 × 1,000); FV = 1,000; CPT → PV = 1,091.

(Module 54.1, LOS 54.a)

Question #8 of 50

Question ID: 1574225

A year ago a company issued a bond with a face value of $1,000 with an 8% coupon. Now the prevailing market yield is 10%. What happens to the bond? The bond:

A) is traded at a market price higher than $1,000.

B) is traded at a market price of less than $1,000.

C) price is not affected by the change in market yield, and will continue to trade at $1,000.

Explanation

A bonds price/value has an inverse relationship with interest rates. Since interest rates are increasing (from 8% when issued to 10% now) the bond will be selling at a discount. This happens so an investor will be able to purchase the bond and still earn the same yield that the market currently offers.

(Module 54.1, LOS 54.b)

Question #9 of 50

Question ID: 1574205

Assume a city issues a $5 million bond to build a hockey rink. The bond pays 8% semiannual interest and will mature in 10 years. Current interest rates are 6%. What is the present value of this bond?

A) $5,743,874.

B) $5,000,000.

C) $3,363,478.

Explanation

Since current interest rates are lower than the coupon rate the bond will be issued at a premium. FV = $5,000,000; N = 20; I/Y = 3; PMT = (0.04)($5,000,000) = $200,000. Compute PV = $-5,743,874

(Module 54.1, LOS 54.a)

Question #10 of 50

Question ID: 1574229

For an option-free bond, as the yield to maturity increases, the bond price:

A) decreases at a decreasing rate. ✓

B) decreases at an increasing rate. ✗

C) increases at a decreasing rate. ✗

Explanation

The relationship between price and yield for an option-free bond is inverse and convex toward the origin. As the yield increases, the price decreases, but at a decreasing rate.

(Module 54.1, LOS 54.b)

Question #11 of 50

Question ID: 1574219

Four years ago, Gamma Corporation issued a 20-year bond carrying an annualized coupon of 6% to expand its existing operations. The coupon is paid on a semiannual basis, and the bond is currently yielding 5.8%. The price of the bond per $100 of principal is *closest* to:

A) $102. ✓

B) $106. ✗

C) $104. ✗

Explanation

As the bond was issued 4 years ago, its remaining maturity is 16 years. The price is calculated as follows:

$$\text{PMT} = 6\% \ / \ 2 \times \$100 = \$3.$$
$$\text{N} = 16 \times 2 = 32.$$
$$\text{I/Y} = 5.8\% \ / \ 2 = 2.9\%.$$
$$\text{FV} = \$100.$$
$$\text{CPT PV to obtain } \$102.07.$$

(Module 54.1, LOS 54.a)

Question #12 of 50

Question ID: 1574199

A coupon bond that pays interest annually has a par value of $1,000, matures in 5 years, and has a yield to maturity of 10%. What is the value of the bond today if the coupon rate is 12%?

A) $1,077.22.

B) $1,075.82.

C) $927.90.

Explanation

FV = 1,000

N = 5

I = 10

PMT = 120

CPT = ?

PV = 1,075.82.

(Module 54.1, LOS 54.a)

Question #13 of 50

Question ID: 1574212

Consider a 6-year $1,000 par bond priced at $1,011. The coupon rate is 7.5% paid semiannually. Six-year bonds with comparable credit quality have a yield to maturity (YTM) of 6%. Should an investor purchase this bond?

A) No, the bond is overvalued by $64.

B) Yes, the bond is undervalued by $38.

C) Yes, the bond is undervalued by $64.

Explanation

FV = 1,000

PMT = 37.5

N = 12

I/Y = 3%

CPT PV = –1,074.66

1,074.66 – 1,011 = 64

(Module 54.1, LOS 54.a)

Question #14 of 50

Question ID: 1574234

Matrix pricing is used primarily for pricing bonds that:

A) differ from their benchmark bond's credit rating.

B) differ from their benchmark bond's maturity.

C) have low liquidity.

Explanation

For bonds that do not trade or trade infrequently, matrix pricing uses the yields on similar issues that do trade to estimate the required yield on the illiquid bonds.

(Module 54.1, LOS 54.c)

Question #15 of 50

Question ID: 1574206

An investor buys a 25-year, 10% annual pay bond for $900 and will sell the bond in 5 years when he estimates its yield will be 9%. The price for which the investor expects to sell this bond is *closest to:*

A) $964.

B) $1,091.

C) $1,122.

Explanation

This is a present value problem 5 years in the future.

N = 20, PMT = 100, FV = 1000, I/Y = 9

CPT PV = -1,091.29

The $900 purchase price is not relevant for this problem.

(Module 54.1, LOS 54.a)

Question #16 of 50

Question ID: 1574232

An analyst using matrix pricing will estimate the value of a bond based on:

A) the issuer's cost of capital from all sources.

B) yields to maturity of other bonds.

C) a probability model for default risk.

Explanation

Matrix pricing is a method for valuing a non-traded or infrequently traded bond based on the yields to maturity of similar bonds that are traded more frequently.

(Module 54.1, LOS 54.c)

Question #17 of 50

Question ID: 1576462

To determine the full price of a corporate bond, a dealer is *most likely* to calculate accrued interest based on:

A) 30-day months and 360-day years.

B) 30-day months and 365-day years.

C) Actual day counts.

Explanation

Accrued interest for corporate bonds is typically calculated using the 30/360 method. For government bonds, accrued interest is typically calculated using the actual/actual method.

(Module 54.1, LOS 54.a)

Question #18 of 50

Question ID: 1574198

What is the value of a 10-year, semi-annual, 8% coupon bond with a $1,000 face value if similar bonds are now yielding 10%?

A) $875.38. ✓

B) $877.11. ✗

C) $1,135.90. ✗

Explanation

Using the financial calculator: N = 10 × 2 = 20; PMT = $80 / 2 = $40; I/Y = 10 / 2 = 5%; FV = 1,000; Compute the bond's value PV = –875.38.

(Module 54.1, LOS 54.a)

Question #19 of 50

Question ID: 1574194

Given a required yield to maturity of 6%, what is the intrinsic value of a semi-annual pay coupon bond with an 8% coupon and 15 years remaining until maturity?

A) $1,095. ✗

B) $1,196. ✓

C) $1,202. ✗

Explanation

This problem can be solved most easily using your financial calculator. Using semiannual payments, I = 6/2 = 3%; PMT = 80/2 = $40; N = 15 × 2 = 30; FV = $1,000; CPT → PV = $1,196.

(Module 54.1, LOS 54.a)

Question #20 of 50

Question ID: 1574191

Interest rates have fallen over the seven years since a $1,000 par, 10-year bond was issued with a coupon of 7%. What is the present value of this bond if the required rate of return is currently four and one-half percent? (For simplicity, assume annual payments.)

A) $1,052.17.

B) $1,068.72.

C) $1,044.33.

Explanation

Each of the remaining cash flows on the bond is discounted at the annual rate of 4.5%.

Period	Payment	Discount	PV
1	$1,000 × 7% = $70	$(1.045)_1$	$ 66.99
2	$1,000 × 7% = $70	$(1.045)_2$	$ 64.10
3	$1,000 × 7% = $70	$(1.045)_3$	$ 61.34
3	$1,000 principal	$(1.045)_3$	$ 876.30
Total Present Value of Cash Flows			**$1,068.73**

The present value can also be determined with a financial calculator. N = 3, I = 4.5%, PMT = $1,000 × 7%, FV = $1,000. Solve for PV = $1,068.724.

(Module 54.1, LOS 54.a)

Question #21 of 50

Question ID: 1574202

A bond offers a 12% coupon paid semiannually and has 15 years left to maturity. Assuming a par value of $1,000 and a yield to maturity of 16%, the price of the bond is *closest* to:

A) $775.

B) $777.

C) $776.

Explanation

The semiannual coupon payment is $1,000 × (0.12 / 2) = $60.

FV = 1,000; PMT = 60; N = 15 × 2 = 30; I/Y = 16 / 2 = 8; CPT → PV = –774.84

(Module 54.1, LOS 54.a)

Question #22 of 50

Question ID: 1574209

What is the probable change in price of a 30-year semiannual 6.5% coupon, $1000 par value bond yielding 8% if the yield decreases to 7%?

A) $106.34.

B) $107.31.

C) $98.83.

Explanation

Price at 8% is N = 60, FV = $1,000, I = 4%, PMT = $32.50, CPT PV = $830.32; price at 7% is N = 60, FV = $1,000, I = 3.5%, PMT = $32.50, CPT PV = $937.64. Change in price is $937.64 – $830.32 = $107.31.

(Module 54.1, LOS 54.a)

Question #23 of 50

Question ID: 1574211

A zero-coupon bond matures three years from today, has a par value of $1,000 and a yield to maturity of 8.5% (assuming semi-annual compounding). What is the current value of this issue?

A) $779.01.

B) $78.29.

C) $782.91.

Explanation

The value of the bond is computed as follows:

Bond Value = $1,000 / 1.0425^6 = $779.01.

N = 6; I/Y = 4.25; PMT = 0; FV = 1,000; CPT → PV = 779.01.

(Module 54.1, LOS 54.a)

Question #24 of 50

Question ID: 1574231

A 10-year, 5% bond is issued at a price to yield 5.2%. Three months after issuance, the yield on this bond has decreased by 100 basis points. The price of this bond at issuance and three months later is:

A) below par at issuance, but above par three months later. ✓

B) above par at issuance, but below par three months later. ✗

C) below par at issuance, and below par three months later. ✗

Explanation

A bond issued at a yield higher than its coupon will be priced below par, or at a discount. Three months later, the yield has declined to 4.2% and the bond will trade at a premium to par, reflecting the fact that the coupon is now higher than the yield.

(Module 54.1, LOS 54.b)

Question #25 of 50

Question ID: 1574228

Ron Logan, CFA, is a bond manager. He purchased $50 million in 6.0% coupon Southwest Manufacturing bonds at par three years ago. Today, the bonds are priced to yield 6.85%. The bonds mature in nine years. The Southwest bonds are trading at a:

A) discount, and the yield to maturity has decreased since purchase. ✗

B) premium, and the yield to maturity has decreased since purchase. ✗

C) discount, and the yield to maturity has increased since purchase. ✓

Explanation

The yield on the bonds has increased, indicating that the value of the bonds has fallen below par. The bonds are therefore trading at a discount. If a bond is selling at a discount, the bond's current price is lower than its par value and the bond's YTM is higher than the coupon rate. Since Logan bought the bonds at par (coupon = YTM = 6%), the YTM has increased.

(Module 54.1, LOS 54.b)

Question #26 of 50

Question ID: 1574216

Parsons Inc. is issuing an annual-pay bond that will pay no coupon for the first five years and then pay a 10% coupon for the remaining five years to maturity. The 10% coupon interest for the first five years will all be paid (without additional interest) at maturity. If the annual YTM on this bond is 10%, the price of the bond per $1,000 of face value is *closest* to:

A) $856.

B) $778.

C) $814.

Explanation

This bond has no cash flows for the first five years. It then has a $100 cash flow for years 6 through 10. Additionally, the accrued interest ($500) that wasn't paid in the first five years would have to be paid at the end, along with the principal. A financial calculator using the CF/NPV worksheet can handle this type of problem. The required inputs are $CF_0 = 0$, $CF_1 = 0$, $F_1 = 5$, $CF_2 = 100$, $F_2 = 4$, $CF_3 = 1{,}600$, $F_3 = 1$, NPV, I = 10%, CPT = 813.69. Note that CF_3 is made up of the principal ($1,000) plus the remaining $100 coupon plus the accrued interest ($500) that was not paid during the first five years of the bond's life.

(Module 54.1, LOS 54.a)

Question #27 of 50

Question ID: 1574190

Which of the following statements regarding zero-coupon bonds and spot interest rates is *most* accurate?

A) Price appreciation creates only some of the zero-coupon bond's return.

B) A coupon bond can be viewed as a collection of zero-coupon bonds.

C) Spot interest rates will never vary across time.

Explanation

Zero-coupon bonds are quite special. Because zero-coupon bonds have no coupons (all of the bond's return comes from price appreciation), investors have no uncertainty about the rate at which coupons will be invested. Spot rates are defined as interest rates used to discount a single cash flow to be received in the future. Any bond can be viewed as the sum of the present value of its individual cash flows where each of those cash flows are discounted at the appropriate zero-coupon bond spot rate.

(Module 54.1, LOS 54.a)

Question #28 of 50

Question ID: 1574214

Consider a 10-year, 6% coupon, $1,000 par value bond, paying annual coupons, with a 10% yield to maturity. The change in the bond price resulting from a 400 basis point increase in yield is *closest to*:

A) $170.

B) $480.

C) $1,160.

Explanation

Using the 10% yield to maturity, the price of the bond originally is $754.22:

N = 10; I/Y = 10; PMT = 60; FV = 1000; CPT PV = $754.22

Using the 14% yield to maturity, the price of the bond changes to $582.71:

N = 10; I/Y = 14; PMT = 60; FV = 1000; CPT PV = $582.71

Therefore, the price is expected to change from $754.22 to $582.71, a decrease of $171.51.

(Module 54.1, LOS 54.a)

Question #29 of 50

Question ID: 1574207

An investor buys a 20-year, 10% semi-annual bond for $900. She wants to sell the bond in 6 years when she estimates yields will be 10%. What is the estimate of the future price?

A) $946.

B) $1,000.

C) $1,079.

Explanation

Since yields are projected to be 10% and the coupon rate is 10%, we know that the bond will sell at par value.

(Module 54.1, LOS 54.a)

Question #30 of 50

Question ID: 1574213

An investor gathered the following information about two 7% annual-pay, option-free bonds:

- Bond R has 4 years to maturity and is priced to yield 6%
- Bond S has 7 years to maturity and is priced to yield 6%
- Both bonds have a par value of $1,000.

Given a 50 basis point parallel upward shift in interest rates, what is the value of the two-bond portfolio?

A) $2,086.

B) $2,030.

C) $2,044.

Explanation

Given the shift in interest rates, Bond R has a new value of $1,017 (N = 4; PMT = 70; FV = 1,000; I/Y = 6.50%; CPT → PV = 1,017). Bond S's new value is $1,027 (N = 7; PMT = 70; FV = 1,000; I/Y = 6.50%; CPT → PV = 1,027). After the increase in interest rates, the new value of the two-bond portfolio is $2,044 (1,017 + 1,027).

(Module 54.1, LOS 54.a)

Question #31 of 50

Question ID: 1574215

Consider a $1,000-face value, 12-year, 8%, semiannual coupon bond with a YTM of 10.45%.

The change in value for a decrease in yield of 38 basis points is:

A) $21.18.

B) $22.76.

C) $23.06.

Explanation

With YTM = 10.45% (I/Y = 5.225), PMT = 40, N = 24, FV = 1,000, PV = $834.61. With YTM = 10.07% (I/Y = 5.035), PV = $857.67, an increase of $23.06.

(Module 54.1, LOS 54.a)

Question #32 of 50

Question ID: 1574208

Consider a bond that pays an annual coupon of 5% and that has three years remaining until maturity. Assume the term structure of interest rates is flat at 6%. If the term structure of interest rates does not change over the next twelve-month interval, the bond's price change (as a percentage of par) will be *closest to:*

A) 0.00.

B) -0.84.

C) 0.84.

Explanation

The bond price change is computed as follows:

Bond Price Change = New Price – Old Price = $(5/1.06 + 105/1.06^2) – (5/1.06 + 5/1.06^2 + 105/1.06^3) = 98.17 – 97.33 = 0.84$.

(Module 54.1, LOS 54.a)

Question #33 of 50

Question ID: 1574203

An investor purchased a 6-year annual interest coupon bond one year ago. The coupon rate of interest was 10% and par value was $1,000. At the time she purchased the bond, the yield to maturity was 8%. The amount paid for this bond one year ago was:

A) $1,092.46.

B) $1,125.53.

C) $1,198.07.

Explanation

N = 6

PMT = (0.10)(1,000) = 100

I = 8

FV = 1,000

CPT = ?

PV = 1,092.46

(Module 54.1, LOS 54.a)

Question #34 of 50

Question ID: 1574223

A 5-year bond with a 10% coupon has a present yield to maturity of 8%. If interest rates remain constant one year from now, the price of the bond will be:

A) higher.

B) lower.

C) the same.

Explanation

A premium bond sells at more than face value, thus as time passes the bond value will converge upon the face value.

(Module 54.1, LOS 54.b)

Question #35 of 50

Question ID: 1574192

Assume a city issues a $5 million bond to build a new arena. The bond pays 8% semiannual interest and will mature in 10 years. Current interest rates are 9%. What is the present value of this bond and what will the bond's value be in seven years from today if the yield is unchanged?

	Present Value	Value in 7 Years from Today
A)	4,674,802	4,871,053
B)	4,674,802	4,931,276
C)	5,339,758	4,871,053

Explanation

Present Value:

Since the current interest rate is above the coupon rate the bond will be priced at a discount. FV = $5,000,000; N = 20; PMT = (0.04)(5 million) = $200,000; I/Y = 4.5; CPT → PV = -$4,674,802

Value in 7 Years:

Since the current interest rate is above the coupon rate the bond will be priced at a discount. FV = $5,000,000; N = 6; PMT = (0.04)(5 million) = $200,000; I/Y = 4.5; CPT → PV = -$4,871,053

(Module 54.1, LOS 54.a)

Question #36 of 50

Question ID: 1576461

Austin Traynor is considering buying a $1,000 face value, semi-annual coupon bond with a quoted price of 104.75 and accrued interest since the last coupon of $33.50. Ignoring transaction costs, how much will the seller receive at the settlement date?

A) $1,014.00.

B) $1,047.50.

C) $1,081.00.

Explanation

The full price is equal to the flat or clean price plus interest accrued from the last coupon date. Here, the flat price is 1,000 × 104.75%, or 1,000 × 1.0475 = 1,047.50. Thus, the full price = 1,047.50 + 33.50 = 1,081.00.

(Module 54.1, LOS 54.a)

Question #37 of 50

Question ID: 1574217

A bond has a yield to maturity of 7% with a periodicity of 4. The bond has a face value of $100,000 and matures in 13 years. Each coupon payment will be $1,800. The current price of the bond is *closest* to:

A) $101,672.

B) $101,698.

C) $102,768.

Explanation

N = 13 × 4 = 52; FV = 100,000; PMT = 1,800; I/Y = 7 / 4 = 1.75; CPT → PV = 101,698.

(Module 54.1, LOS 54.a)

Question #38 of 50

Question ID: 1574224

If yields do not change over the life of a zero-coupon bond, its price will *least likely*:

A) approach par value.

B) follow the bond's constant-yield price trajectory.

C) remain constant.

Explanation

A zero coupon bond will be issued at a discount (yield > coupon). If market rates remain constant, the price will rise toward par value as maturity approaches. The path that the price takes if the yield does not change is known as the constant-yield price trajectory.

(Module 54.1, LOS 54.b)

Question #39 of 50

Question ID: 1574196

Georgia Corporation has $1,000 par value bonds with 10 years remaining maturity. The bonds carry a 7.5% coupon that is paid semi-annually. If the current yield to maturity on similar bonds is 8.2%, what is the current value of the bonds?

A) $569.52.

B) $952.85.

C) $1,123.89.

Explanation

The coupon payment each six months is ($1,000)(0.075 / 2) = $37.50. To value the bond, enter FV = $1,000; PMT = $37.50; N = 10 × 2 = 20; I/Y = 8.2 / 2 = 4.1%; CPT → PV = –952.85.

(Module 54.1, LOS 54.a)

Question #40 of 50

Question ID: 1574220

A new-issue, 15-year, $1,000 face value 6.75% semi-annual coupon bond is priced at $1,075. Which of the following describes the bond and the relationship of the bond's market yield to the coupon?

A) Premium bond, required market yield is greater than 6.75%. ✗

B) Premium bond, required market yield is less than 6.75%. ✓

C) Discount bond, required market yield is greater than 6.75%. ✗

Explanation

When the issue price is greater than par, the bond is selling at a premium. We also know that the *current market required rate is less than the coupon rate* of 6.75%, because the bond is selling at a premium.

For the examination, remember the following relationships:

Type of Bond	Market Yield to Coupon	Price to Par
Premium	Market Yield < Coupon	Price > Par
Par	Market Yield = Coupon	Price = Par
Discount	Market Yield > Coupon	Price < Par

(Module 54.1, LOS 54.b)

Question #41 of 50

Question ID: 1574210

The value of a 10 year zero-coupon bond with a par value of $1,000, yielding 9.6% on a semiannual-bond basis, is *closest* to:

A) $410. ✗

B) $400. ✗

C) $390. ✓

Explanation

Because the yield is quoted on a semiannual-bond basis, we must divide the yield by 2 to get the bond's 6-month holding period yield, and multiply the number of years by 2 to get the number of semiannual periods to maturity.

I/Y = 9.6 / 2 = 4.8; FV = 1,000; N = 10 × 2 = 20; PMT = 0; CPT → PV = –391.54

(Module 54.1, LOS 54.a)

Question #42 of 50

Question ID: 1574193

Today an investor purchases a $1,000 face value, 10%, 20-year, semi-annual bond at a discount for $900. He wants to sell the bond in 6 years when he estimates the yields will be 9%. What is the estimate of the future price?

A) $946. ✗

B) $1,079. ✓

C) $1,152. ✗

Explanation

In 6 years, there will be 14 years (20 – 6), or 14 × 2 = 28 semi-annual periods remaining of the bond's life So, N = (20 – 6)(2) = 28; PMT = (1,000 × 0.10) / 2 = 50; I/Y = 9/2 = 4.5; FV = 1,000; CPT → PV = 1,079.

Note: Calculate the PV (we are interested in the PV 6 years from now), not the FV.

(Module 54.1, LOS 54.a)

Question #43 of 50

Question ID: 1574195

A 7% callable semiannual-pay bond with a $1,000 face value has 20 years to maturity. If the yield to maturity is 8.25% and the yield to call is 9.25% the value of the bond is *closest* to:

A) $797. ✗

B) $836. ✗

C) $879. ✓

Explanation

The price of a bond is equal to the present value of future cash flows discounted at the yield to maturity.

N = 20 × 2 = 40; I/Y = 8.25/2 = 4.125; PMT = 70/2 = 35; FV = 1,000;

Compute PV = 878.56.

Note that the yield to call cannot be used here to calculate the bond value, because the call date is not given.

(Module 54.1, LOS 54.a)

Question #44 of 50

Question ID: 1574226

For a bond trading at a discount, the current yield will *most likely* be:

A) higher than the yield to maturity. ✗

B) lower than the yield to maturity. ✓

C) the same as the yield to maturity. ✗

Explanation

The current yield (unlike the YTM) ignores movements toward par value along the constant-yield price trajectory, and therefore will not capture the return attributable to a discount bond's increase in price toward par as maturity approaches.

(Module 54.1, LOS 54.b)

Question #45 of 50

Question ID: 1576459

In the context of bonds, accrued interest:

A) covers the part of the next coupon payment not earned by seller. ✗

B) equals interest earned from the previous coupon to the sale date. ✓

C) is discounted along with other cash flows to arrive at the dirty, or full price. ✗

Explanation

This is a correct definition of accrued interest on bonds.

The other choices are false. Accrued interest *is not discounted* when calculating the price of the bond. The statement, "covers the part of the next coupon payment not earned by seller," should read, "...not earned by *buyer*."

(Module 54.1, LOS 54.a)

Question #46 of 50

Question ID: 1574201

An investor plans to buy a 10-year, $1,000 par value, 8% semiannual coupon bond. If the yield to maturity of the bond is 9%, the bond's value is:

A) $1,067.95. ✗

B) $934.96.

C) $935.82.

Explanation

N = 20, I = 9/2 = 4.5, PMT = 80/2 = 40, FV = 1,000, compute PV = $934.96

(Module 54.1, LOS 54.a)

Question #47 of 50

Question ID: 1574222

Consider a 10%, 10-year bond sold to yield 8%. If after one year the bond has followed its constant yield price trajectory, its price will *most likely* have:

A) increased.

B) decreased.

C) remained constant.

Explanation

The path that a bond's price follows over its maturity assuming the yield is held constant is known as the constant yield price trajectory. In this case it is being held constant at 8%.

Given the bond is sold at a premium (coupon > YTM), its price will decrease as it moves toward par value.

Price at issuance: N = 10; FV = 1,000; PMT = 100; I = 8; CPT → PV = 1,134

Price after one year: N = 9; FV = 1,000; PMT = 100; I = 8; CPT → PV = 1,125

(Module 54.1, LOS 54.b)

Question #48 of 50

Question ID: 1574218

An investor purchases a $1,000 5% coupon bond with quarterly coupon payments that matures in 12 years and has a yield to maturity of 7.0%. The price the investor pays is *closest* to:

A) $838.53.

B) $839.42.

C) $841.15.

Explanation

N = 12 × 4 = 48, FV = 1,000, PMT = 50/4 = 12.5, I/Y = 7.0/4 = 1.75; CPT PV = −838.53.

(Module 54.1, LOS 54.a)

Question #49 of 50

Question ID: 1574221

Consider a 10%, 10-year bond sold to yield 8%. One year passes and interest rates remained unchanged (8%). If after one year the bond has followed its constant yield price trajectory, its price will *most likely* have:

A) remained constant. ✗

B) increased. ✗

C) decreased. ✓

Explanation

The path that a bond's price follows over its maturity assuming the yield is held constant is known as the constant yield price trajectory. In this case it is being held constant at 8%.

Given the bond is sold at a premium (coupon > YTM), its price will decrease as it moves toward par value.

Price at issuance: N = 10; FV = 1,000; PMT = 100; I = 8; CPT → PV = 1,134

Price after one year: N = 9; FV = 1,000; PMT = 100; I = 8; CPT → PV = 1,125

(Module 54.1, LOS 54.b)

Question #50 of 50

Question ID: 1576463

A $1,000 par, semiannual-pay bond is trading for 89.14, has a coupon rate of 8.75%, and accrued interest of $43.72. The flat price of the bond is:

A) $847.69. ✗

B) $891.40. ✓

C) $935.12. ✗

Explanation

The flat price of the bond is the quoted price, 89.14% of par value, which is $891.40.

(Module 54.1, LOS 54.a)