QUESTIONS:

1. A bond is trading at a premium if its:
   A) Price is greater than its par value.
   B) Yield is greater than its coupon rate.
   C) Redemption value is greater than its face value.

2. Every six months a bond pays coupon interest equal to 3% of its par value. This bond is:
   A) 6% semi-annual coupon bond.
   B) 3% semi-annual coupon bond.
   C) 6% annual coupon bond.

3. Which of the following fixed income securities is classified as a money market security?
   A) Newly issued security that will mature in one year.
   B) Security issued six months ago that will mature in one year.
   C) Security issued 18 months ago that will mature in six months.

4. Which of the following statements about zero-coupon bonds is least accurate?
   A) The lower the price, the greater the return for a given maturity.
   B) All interest is earned at maturity.
   C) A zero coupon bond may sell at a premium to par when interest rates decline.

5. An analyst observes a 5-year, 10% coupon bond with semi-annual payments. The face value is £1,000. How much is each coupon payment?
   A) £25.
   B) £100.
   C) £50.
6. A bond’s indenture least likely specifies the:
   A) Covenants that apply to the issuer.
   B) Identity of the lender.
   C) Source of funds for repayment.

7. Features specified in a bond indenture least likely include the bond’s:
   A) Par value and currency.
   B) Issuer and rating.
   C) Coupon rate and maturity date.

8. Which of the following contains the overall rights of the bondholders?
   A) Covenant.
   B) Rights offering.
   C) Indenture.

9. A covenant that requires the issuer not to let the insurance coverage lapse on assets pledged as collateral is an example of a(n):
   A) Affirmative covenant.
   B) Negative covenant.
   C) Inhibiting covenant.

10. Which of the following bond covenants is considered negative?
    A) Payment of taxes.
    B) No additional debt.
    C) Maintenance of collateral.
11. Which of the following issues is most accurately described as a Eurobond?
   A) European Union firm’s Japanese yen-denominated bonds sold to investors in Japan.
   B) South Korean firm’s euro-denominated bonds sold to investors in the European Union.
   C) Brazilian firm’s U.S. dollar-denominated bonds sold to investors in Canada.

12. Securitized bonds are most likely to be issued by:
   A) Banking institutions.
   B) Special purpose entities.
   C) Supranational entities.

13. In most countries including the United States, debenture is defined as:
   A) A short-term debt instrument.
   B) An unsecured bond.
   C) A bond secured by specific assets.

14. Which of the following is a general problem associated with external credit enhancements? External credit enhancements:
   A) Are subject to the credit risk of the third-party guarantor.
   B) Are very long-term agreements and are therefore relatively expensive.
   C) Are only available on a short-term basis.

15. Which of the following is least likely an example of external credit enhancement?
   A) Excess spread.
   B) Bank guarantee.
   C) Surety bond.
16. Which of the following entities play a critical role in the ability to create a securitized bond with a higher credit rating than the corporation?
   A) Special purpose vehicles.
   B) Rating agencies.
   C) Investment banks

17. Which of the following is least likely an example of external credit enhancements?
   A) Excess spread.
   B) Letters of credit.
   C) Bank guarantees.

18. To reduce the cost of long-term borrowing, a corporation with a below average credit rating could:
   A) Issue securitized bonds.
   B) Decrease credit enhancement.
   C) Issue commercial paper.

19. A bond whose periodic payments are all equal is said to have a(n):
   A) Amortizing structure.
   B) Bullet structure.
   C) Balloon structure.

20. The coupon rate of a fixed income security is stated as 90-day LIBOR plus 125 basis points. This security is most accurately described as a(n):
   A) Variable-rate note.
   B) Reference-rate note.
   C) Floating-rate note.
21. Consider $1,000,000 par value, 10-year, and 6.5% coupon bonds issued on January 1, 2005. The market rate for similar bonds is currently 5.7%. A sinking fund provision requires the company to redeem $100,000 of the principal each year. Bonds called under the terms of the sinking fund provision will be redeemed at par. A bondholder would:

A) Prefer not to have her bonds called under the sinking fund provision.
B) Prefer to have her bonds called under the sinking fund provision.
C) Be indifferent between having her bonds called under the sinking fund provision or not called.

22. Which of the following statements with regard to floating rate notes that has caps and floors is most accurate?

A) A floor is a disadvantage to both the issuer and the bondholder while a cap is an advantage to both the issuer and the bondholder.
B) A cap is an advantage to the bondholder while a floor is an advantage to the issuer.
C) A cap is a disadvantage to the bondholder while a floor is a disadvantage to the issuer.

23. All cans, an aluminium producer, needs to issue some debt to finance expansion plans, but wants to hedge its bond interest payments against fluctuations in aluminium prices. Jerrod Price, the company’s investment banker, suggests a commodity index floater. This type of bond is least likely to provide which of the following advantages?

A) The bond's coupon rate is linked to the price of aluminium.
B) Payment structure helps protect all can’s credit rating.
C) Allows all cans to set coupon payments based on business results.
24. Which of the following statements regarding a sinking fund provision is most accurate?
   A) It requires that the issuer set aside money based on a predefined schedule to accumulate the cash to retire the bonds at maturity.
   B) It permits the issuer to retire more than the stipulated amount if they choose.
   C) It requires that the issuer retire a portion of the principal through a series of principal payments over the life of the bond.

25. An investor holds $100,000 (par value) worth of TIPS currently trading at par. The coupon rate of 4% is paid semi-annually, and the annual inflation rate is 2.5%. What coupon payment will the investor receive at the end of the first six months?
   A) $2,000.
   B) $2,025.
   C) $2,050.

26. Which of the following statements about U.S. Treasury Inflation Protection Securities (TIPS) is most accurate?
   A) Adjustments to principal values are made annually.
   B) The coupon rate is fixed for the life of the issue.
   C) The inflation-adjusted principal value cannot be less than par.

27. Consider a floating rate issue that has a coupon rate that is reset on January 1 of each year. The coupon rate is defined as one-year London Interbank Offered Rate (LIBOR) + 125 basis points and the coupons are paid semi-annually. If the one-year LIBOR is 6.5% on January 1, which of the following is the semi-annual coupon payment received by the holder of the issue in that year?
   A) 3.250%.
   B) 3.875%.
   C) 7.750%.
28. A bond has a par value of $5,000 and a coupon rate of 8.5% payable semi-annually. The bond is currently trading at 112.16. What is the dollar amount of the semi-annual coupon payment?
   A) $212.50.
   B) $238.33.
   C) $425.00.

29. Which of the following embedded options in a fixed income security can be exercised by the issuer?
   A) Call option.
   B) Put option.
   C) Conversion option.

30. The indenture of a callable bond states that the bond may be called on the first business day of any month after the first call date. The call option embedded in this bond is a(n):
   A) American style call option.
   B) European style call option.
   C) Bermuda style call option.

31. Which of the following statements about the call feature of a bond is most accurate?
   An embedded call option:
   A) Stipulates whether and under what circumstances the issuer can redeem the bond prior to maturity.
   B) Stipulates whether and under what circumstances the bondholders can request an earlier repayment of the principal amount prior to maturity.
   C) Describes the maturity date of the bond.
32. As compared to an equivalent non-callable bond, a callable bond’s yield should be:
   A) Higher.
   B) The same
   C) Lower

33. As compared to an equivalent non-puttable bond, a puttable bond’s yield should be:
   A) The same
   B) Lower
   C) Higher

34. Fixed income classifications by geography most likely include:
   A) Supranational bonds.
   B) Municipal bonds.
   C) Emerging market bonds.

35. Fixed income classifications by credit quality most likely include:
   A) Money market securities.
   B) Developed market bonds.
   C) Investment grade bonds.

36. The reference rate for a floating-rate note should least likely match the note’s:
   A) Maturity
   B) Currency
   C) Reset Frequency
37. The most appropriate reference rate for a one-year, U.S. dollar denominated, floating-rate note that resets monthly is:
   A) 1-year LIBOR.
   B) Overnight LIBOR.
   C) 30-day LIBOR.

38. A purchase of a new bond issue by a single investor is most accurately described as a(n):
   A) Underwritten offering.
   B) Private placement.
   C) Grey market transaction.

39. Which of the following least likely represents a primary market offering? When bonds are sold:
   A) From a dealer’s inventory.
   B) On a best-efforts basis.
   C) In a private placement.

40. Settlement for a government bond trade most often occurs on the:
   A) Same day as the trade.
   B) Third trading day after the trade.
   C) Next trading day after the trade.

41. A bond is quoted at 96.25 bid and 96.75 ask. Based only on this information, this bond is most likely:
   A) Non-investment grade.
   B) A corporate bond.
   C) Relatively illiquid.
42. The principal value of a sovereign bond is $1,000 at issuance and $1,055 two years after issuance. This bond most likely:
   A) Trades at a premium.
   B) Is indexed for inflation.
   C) Has been upgraded.

43. Bonds issued by the International Monetary Fund (IMF) are most accurately described as:
   A) Supranational bonds.
   B) Quasi-government bonds.
   C) Non-sovereign government bonds.

44. Which of the following is a difference between an on-the-run and an off-the-run issue? An on-the-run issue:
   A) Is publicly traded whereas an off-the-run issue is not.
   B) Is the most recently issued security of that type.
   C) Tends to sell at a lower price.

45. If two banks fund a loan to a corporation, the loan is most accurately described as a:
   A) Bilateral loan.
   B) Backup line of credit.
   C) Syndicated loan.
46. On November 15, 20X1, Grinnell Construction Company decided to issue bonds to help finance the acquisition of new construction equipment. They issued bonds totalling $10,000,000 with a 6% coupon rate due June 15, 20X9. Grinnell has agreed to pay the entire amount borrowed in one lump sum payment at the maturity date. Grinnell is not required to make any principal payments prior to maturity. What type of bond structure has Grinnell issued?
   A) Term maturity structure.
   B) Serial maturity structure.
   C) Amortizing maturity structure.

47. The interbank funds market is most accurately described as:
   A) Unsecured short-term loans from one bank to another.
   B) Banks borrowing of reserves from the central bank.
   C) Trading of negotiable certificates of deposit.

48. Which of the following sources of short-term funding is available to banks but typically unavailable to other corporations?
   A) Central bank funds.
   B) Commercial paper.
   C) Syndicated loans.

49. Compared to a term repurchase agreement, an overnight repurchase agreement is most likely to have a:
   A) Lower repo rate and higher repo margin.
   B) Higher repo rate and repo margin.
   C) Lower repo rate and repo margin.
50. A repurchase agreement is described as a reverse repo if:
   A) The repurchase price is lower than the sale price.
   B) Collateral is delivered to the lender and returned to the borrower.
   C) A bond dealer is the lender.

51. 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) $1,152.
   B) $1,079.
   C) $946.

52. A bond with a 12% coupon, 10 years to maturity and selling at 88 percent of par has a
yield to maturity of:
   A) Over 14%.
   B) Between 13% and 14%.
   C) Between 10% and 12%.

53. A zero-coupon bond has a yield to maturity of 9.6% (annual basis) and a par value of
$1,000. If the bond matures in 10 years, today's price of the bond would be:
   A) $422.41.
   B) $391.54.
   C) $399.85.

54. 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) $78.29.
   B) $779.01.
   C) $782.91.
55. A coupon bond that pays interest semi-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 8%?
   A) $922.78.
   B) $1,221.17.
   C) $1,144.31.

56. What value would an investor place on a 20-year, 10% annual coupon bond, if the investor required an 11% rate of return?
   A) $879.
   B) $1,035
   C) $920.

57. 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) $1,196.
   B) $1,095.
   C) $1,202.

58. What is the present value of a 7% semi-annual-pay bond with a $1,000 face value and 20 years to maturity if similar bonds are now yielding 8.25%?
   A) $878.56.
   B) $879.52.
   C) $1,000.00.
59. 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) $1,123.89.
B) $569.52.
C) $952.85.

60. 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) $920.
B) $879.
C) $1,091
ANSWERS:

Q1- (A)
Reason: If a bond’s price is greater than its par value, the bond is trading at a premium. If a bond’s yield is greater than its coupon rate, its price is less than par value and the bond is trading at a discount. Face value and redemption value both refer to par value.

Q2- (A)
Reason: The coupon rate on a bond is the percentage of its par value that it pays in interest each year. The coupon frequency states how often the bond will pay interest. A 6% semi-annual coupon bond pays interest twice per year with each coupon equalling half of 6%, or 3%, of par value.

Q3- (A)
Reason: Money market securities have original maturities of one year or less. Fixed income securities originally issued with maturities longer than one year are classified as capital market securities.

Q4- (C)
Reason: Zero coupon bonds always sell below their par value or at a discount prior to maturity. The amount of the discount may change as interest rates change, but a zero coupon bond will always be priced less than par.

Q5- (C)
Reason: The coupon rate is the percentage of par value paid annually. With semi-annual coupons, half of the annual coupon rate is paid every six months. For a 5-year, 10% coupon bond with semi-annual payments and a face value of £1,000, each coupon payment is half of 10% times £1,000, or £50.

Q6- (B)
Reason: The identity of the lender (i.e., the bondholder) is not specified in a bond’s indenture because a bond may be traded during its life. An indenture or trust deed is a legal contract that specifies a bond issuer’s obligations and restrictions. The indenture may
include covenants that require the issuer to take or refrain from taking certain actions and may specify the source of funds for repayment, such as a project to be funded or the taxing power of a government.

Q7- (B)
Reason: Bond ratings are assigned by third-party credit rating agencies and may change during the life of a bond. Features that are specified in the indenture for a fixed income security include its issuer, maturity date, par value, coupon rate and frequency, and currency.

Q8- (C)
Reason: An indenture specifies the rights of bondholders and the obligations of the issuer. Covenants are specific provisions within the indenture. A rights offering is typically associated with an equity security.

Q9- (A)
Reason: Covenants are classified as negative or affirmative. Affirmative covenants specify administrative actions a bond issuer is required to take, such as maintaining insurance coverage on assets pledged as collateral. Negative covenants are restrictions on a bond issuer’s actions, such as preventing an issuer from selling any assets that have been pledged as collateral or pledging them again as collateral for additional debt.

Q10- (B)
Reason: Negative covenants set forth limitations and restrictions, whereas affirmative covenants primarily set forth administrative activities that the borrower promises to do.

Q11- (C)
Reason: European issuer, or denominated in the euro currency. A U.S. dollar-denominated bond sold to investors outside the United States is called a "Eurodollar bond."
Q12- (B)
Reason: The issuer of a securitized bond is typically a special purpose entity (SPE), also known as a special purpose vehicle (SPV) or special purpose company (SPC). An SPE is formed specifically to purchase and administer assets that will provide the cash flows to pay interest and principal on bonds the entity issues. These bonds are called securitized bonds.

Q13- (B)
Reason: In most countries a debenture is defined as unsecured debt.

Q14- (A)
Reason: If the guarantor is downgraded, the issue itself could be subject to downgrade even if the structure is performing as expected.

Q15- (A)
Reason: Excess spread is an internal credit enhancement. External credit enhancements include bank guarantees, letters of credit, and surety bonds.

Q16- (A)
Reason: SPVs, or special purpose entities (SPEs), buy the assets from the corporation. The SPV separates the assets used as collateral from the corporation that is seeking financing. This shields the assets from other creditors.

Q17- (A)
Reason: Excess spread is an example of internal, not external credit enhancement.

Q18- (A)
Reason: Commercial paper is only issued by corporations with top credit ratings. Decreasing credit enhancements increase the cost of borrowing.

Q19- (A)
Reason: Only a fully amortizing structure features payments that are all equal. A bullet structure pays a series of equal coupons but the final coupon is paid at the same time as the bond’s principal. A final payment that includes a lump sum in addition to the last interest payment is referred to as a balloon payment.
Q20- (C)
Reason: A floating-rate note has a coupon rate based on a market-determined reference rate such as 90-day LIBOR. Typically the coupon rate will be stated as a margin above the reference rate. A variable-rate note has a margin above the reference rate that is not fixed over the life of the note. An index-linked bond has a coupon payment or principal amount that adjusts based on the value of a published index such as an equity market, commodity, or inflation index.

Q21- (A)
Reason: With the market rate currently below the coupon rate, the bonds will be trading at a premium to par value. Thus, a bondholder would prefer not to have her bonds called under the sinking fund provision.

Q22- (C)
Reason: A cap limits the upside potential of the coupon rate paid on the floating rate bond and is therefore a disadvantage to the bondholder. A floor limits the downside potential of the coupon rate and is therefore a disadvantage to the bond issuer.

Q23- (C)
Reason: The coupon rate is set in the bond agreement (indenture) and cannot be changed unilaterally. Non-interest rate indexed floaters are indexed to a commodity price such as oil or aluminium. Business results could be impacted by numerous factors other than aluminium prices. Both of the other choices are true. By linking the coupon payments directly to the price of aluminium (meaning that when aluminium prices increase, the coupon rate increases and vice versa), the non-interest index floater allows Allcans to protect its credit rating during adverse circumstances.

Q24- (C)
Reason: A sinking fund actually retires the bonds based on a schedule. This can be accomplished through either payment of cash or through the delivery of securities. An accelerated sinking fund provision allows the company to retire more than is stipulated in the indenture, but not all sinking fund provisions allow this.
Q25- (B)
Reason: Coupon payment = ($100,000 \times 1.0125) (0.04/2) = $2.025

Q26- (B)
Reason: The coupon rate is set at a fixed rate determined via auction. This is called the real rate. The principal that serves as the basis of the coupon payment and the maturity value is adjusted semi-annually. Because of the possibility of deflation, the adjusted principal value may be less than par (however, at maturity the Treasury redeems the bonds at the greater of the inflation-adjusted principal and the initial par value).

Q27- (B)
Reason: This value is computed as follows: Semi-annual coupon = (LIBOR + 125 basis points) / 2 = 3.875%

Q28- (A)
Reason: The dollar amount of the coupon payment is computed as follows: Coupon in $ = $5,000 \times 0.085 / 2 = $212.50

Q29- (A)
Reason: Securities with embedded call options may be called by the issuer. An embedded put option gives the bondholder the right to sell (put) the security back to the issuer. A conversion option gives the bondholder the right to exchange the security for the issuer’s common stock.

Q30- (C)
Reason: A bond with a Bermuda style embedded call option may be called on pre specified dates after the first call date. A European style embedded call option specifies a single date on which a bond may be called. With an American style embedded call option, a bond may be called any time after its first call date.

Q31- (A)
Reason: Call provisions give the issuer the right (but not the obligation) to retire all or a part of an issue prior to maturity. If the bonds are called, the bondholder has no choice but
to turn in his bonds. Call features give the issuer the opportunity to get rid of expensive (high coupon) bonds and replace them with lower coupon issues in the event that market interest rates decline during the life of the issue. Call provisions do not pertain to maturity. A put provision gives the bondholders certain rights regarding early payment of principal.

Q32- (A)
Reason: A callable bond favours the issuer. Hence, the value of the bond is discounted by the value of the option, which means the yield will be higher.

Q33- (B)
Reason: A puttable bond favours the buyer (investor). Hence, a premium will be paid for the option, which means the yield will be lower.

Q34- (C)
Reason: Classifying fixed income securities as developed market or emerging market bonds is an example of classification by geography. Supranational bonds are a classification by type of issuer. Municipal bonds are a classification by type of issuer or by taxable status.

Q35- (C)
Reason: Classifying fixed income securities as developed market or emerging market bonds is an example of classification by geography. Supranational bonds are a classification by type of issuer. Municipal bonds are a classification by type of issuer or by taxable status.

Q36- (A)
Reason: An appropriate reference rate for a floating-rate note should match its currency and the frequency with which its coupon rate is reset, such as 90-day yen Libor for a yen-denominated note that resets quarterly.

Q37- (C)
Reason: The reference rate for floating-rate debt should match the frequency with which the coupon rate is reset.
Q38- (B)
Reason: In a private placement, an entire bond issue is sold to a single investor or a small group of investors, rather than being offered to the public.

Q39- (A)
Reason: When bonds are sold from a dealer’s inventory, the bonds have already been sold once and the transaction takes place on the secondary market. The other transactions in the responses take place in the primary market. When bonds are sold on a best-efforts basis, the investment banker does not take ownership of the securities and agrees to sell all she can. In a private placement, the bonds are sold privately to a small number of investors.

Q40- (C)
Reason: Government bond trades typically settle on the next trading day (T + 1). Money market instruments typically have cash settlement (settle on the same day). Settlement for corporate bond trades is typically on the third trading day after the trade (T + 3).

Q41- (C)
Reason: The spread between the bid and ask prices is one-half percent of par, which most likely reflects an illiquid market for this bond. Bonds with liquid secondary markets typically have bid-ask spreads of approximately 10 to 12 basis points.

Q42- (B)
Reason: Inflation-indexed bonds often have a capital-indexed structure in which the principal value is adjusted periodically by the inflation rate. Credit rating upgrades or downgrades do not affect the principal value of bonds. A bond is trading at a premium when its market price is greater than its principal value.

Q43- (A)
Reason: Supranational bonds are issued by multilateral organizations such as the IMF. Quasi-government bonds are issued by agencies created by a national government.
Non-sovereign government bonds are issued by state, provincial, and local governments or municipal entities.

Q44- (B)
Reason: An on-the-run issue is the most recently auctioned Treasury issue. An off-the-run issue older issues, when more current issues are brought to market.

Q45- (C)
Reason: Syndicated loans are funded by more than one bank. A bilateral loan involves only one bank (bilateral refers to the lender and the borrower). A backup line of credit is an agreement to provide funds if needed and may be used, for example, to provide credit enhancement for a commercial paper issue.

Q46- (A)
Reason: These bonds have a term maturity structure because the issuer has agreed to pay the entire amount borrowed in one lump-sum payment at maturity.

Q47- (A)
Reason: The interbank funds market refers to short-term unsecured loans between banks. It does not refer to trading of negotiable certificates of deposit. Borrowing from the central bank is said to occur in the central bank funds market.

Q48- (A)
Reason: Sources of short-term funding for banks that are generally not available to other corporations include retail customer deposits, certificates of deposit, central bank funds, and interbank lending. Syndicated loans and commercial paper issuance are funding sources available to other corporations as well as banks.

Q49- (C)
Reason: Both the repo rate and the repo margin tend to be higher for longer repo terms. Therefore an overnight repo should have a lower repo rate and a lower repo margin than a term (i.e., longer than overnight) repo.
Q50- (C)
Reason: Bond dealers frequently use repurchase agreements as sources of funding. When a bond dealer enters a repo as the lender instead of the borrower, the agreement is referred to as a reverse repo.

Q51- (B)
Reason: In 6 years, there will be 14 years \((20 - 6)\), or \(14 \times 2 = 28\) semi-annual periods remaining of the bond's life. So, \(N = (20 - 6)(2) = 28\); \(PMT = (1,000 \times 0.10) / 2 = 50\); \(I/Y = 9/2 = 4.5\); \(FV = 1,000\); CPT → PV = 1,079. Note: Calculate the PV (we are interested in the PV 6 years from now), not the FV.

Q52- (A)
Reason: \(PMT = 12\); \(N = 10\); \(PV = -88\); \(FV = 100\); CPT → \(I = 14.3\)

Q53- (C)
Reason: \(I = 9.6\); \(FV = 1,000\); \(N = 10\); \(PMT = 0\); CPT → PV = 399.85

Q54- (B)
Reason: The value of the bond is computed as follows: Bond Value = $1,000 / 1.04256 = $779.01. \(N = 6\); \(I/Y = 4.25\); \(PMT = 0\); \(FV = 1,000\); CPT → PV = 779.01

Q55- (A)
Reason: \(FV = 1,000\); \(N = 10\); \(PMT = 40\); \(I = 5\); CPT → PV = 922.78

Q56- (C)
Reason: \(N = 20\), \(I/Y = 11\), \(PMT = 100\), \(FV = 1,000\), CPT PV.

Q57- (A)
Reason: This problem can be solved most easily using your financial calculator. Using semi-annual payments, \(I = 6/2 = 3\%\); \(PMT = 80/2 = 40\); \(N = 15 \times 2 = 30\); \(FV = 1,000\); CPT → PV = $1,196

Q58- (A)
Reason: \(N = 20 \times 2 = 40\); \(I/Y = 8.25/2 = 4.125\); \(PMT = 70/2 = 35\); and \(FV = 1,000\). Compute PV = 878.56
Q59- (C)

Reason: 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 Â— 2 = 20; I/Y = 8.2 / 2 = 4.1%; CPT → PV = 952.85

Q60- (C)

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