

Web Chapter 1: Financial Decision Making

W1.1 Investment Returns

- 1) The thing you must give up in the future to consume something today is known as the _____ of consuming now.
- A) opportunity cost
 - B) variable cost
 - C) average cost
 - D) sunk cost

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Investment Returns

- 2) The growth process that causes investments to appreciate in value over many years is referred to as _____.
- A) sniping
 - B) hedging
 - C) revaluating
 - D) compounding

Answer: D

Difficulty: Easy

AACSB: Analytical Thinking

Topic: How Money Grows

- 3) An investor's principal is _____.
- A) the value of her initial investment
 - B) the final balance she has in her account after a period of time
 - C) the amount she earns on her investment
 - D) the tax she pays on her interest income

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: How Money Grows

- 4) John had \$2,000 in his account at the beginning of 2009. At the end of the year, the account had \$2,002. The rate of return on the account is _____.
- A) 0.02%
 - B) 0.1%
 - C) 2%
 - D) 10%

Answer: B

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

- 5) If Mary had \$500 in her bank account at the beginning of 2010, she would have a final balance of _____ after a year if the rate of return is 5%.
- A) \$505
 - B) \$525
 - C) \$550
 - D) \$555

Answer: B

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

- 6) Philip invested \$800 for a period of one year at a rate of interest of 6%, the return on his investment is ____.
- A) \$48
 - B) \$80
 - C) \$60
 - D) \$88

Answer: A

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

- 7) Ron had \$100 in his bank account in 2008. He will have a final balance of ____ after 3 years if the rate of return is 1%.
- A) \$101.01
 - B) \$103.03
 - C) \$130
 - D) \$300

Answer: B

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

- 8) The time delay between the initial investment and the final withdrawal is referred to as the ____.
- A) effectiveness lag
 - B) problem of time inconsistency
 - C) holding period
 - D) implementation lag

Answer: C

Difficulty: Easy

AACSB: Analytical Thinking

Topic: How Money Grows

- 9) Which of the following is true when interest compounds?
- A) Interest is earned only on interest.
 - B) Interest is earned only on the principal.
 - C) The entire interest income is not returned to the investor.
 - D) Interest is earned both on the interest and the principal.

Answer: D

Difficulty: Easy

AACSB: Analytical Thinking

Topic: How Money Grows

- 10) Mr. Brown had deposited a sum of money in a bank at an interest of 5%. If he got back \$4,725 after 1 year, what was his principal?
- A) \$945
 - B) \$1,000
 - C) \$4,500
 - D) \$4,700

Answer: C

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

- 11) Mark invested an amount of \$1,500 for a period of 2 years at a rate of interest of 5%. In order to have a final balance of \$1,653.75, Mark should ____.
- A) consume the interest earned at the end of each year
 - B) reinvest the interest earned at the end of the first year
 - C) withdraw his principal at the end of the first year
 - D) invest \$100 at the end of the first year

Answer: B

Difficulty: Medium

AACSB: Analytical Thinking

Topic: How Money Grows

- 12) Which of the following reduces the buying power of the final balance in an investor's account?
- A) A rise in the aggregate price level
 - B) A rise in domestic interest rates
 - C) An appreciation of the domestic currency
 - D) A decrease in money supply

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: How Money Grows

- 13) Which of the following is likely to be true if the inflation rate is positive in an economy?
- A) The purchasing power of the returns from investments are likely to decline.
 - B) The purchasing power of the returns from investments are likely to increase.
 - C) The nominal interest rates are likely to decline.
 - D) The real money supply is likely to increase.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: How Money Grows

- 14) The real rate of return on an investment is obtained by ____.
- A) subtracting the long-run inflation rate from the nominal rate of return
 - B) adding the long-run inflation rate to the nominal rate of return
 - C) multiplying the long-run inflation rate with the nominal rate of return
 - D) dividing the nominal rate of return by the long-run inflation rate

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: How Money Grows

- 15) If the nominal rate of return is 6.5% and the long-run inflation rate is 3%, the real rate of return on an investment is ____.
- A) 2.16%
 - B) 3.5%
 - C) 9.5%
 - D) 19.5%

Answer: B

Difficulty: Easy

AACSB: Application of Knowledge

Topic: How Money Grows

- 16) If the real rate of return on an investment is 4% and the long-run inflation rate is 4%, the nominal rate of return is ____.
- A) 0%
 - B) 1%
 - C) 8%
 - D) 16%

Answer: C

Difficulty: Easy

AACSB: Application of Knowledge

Topic: How Money Grows

- 17) If the nominal rate of return on an investment is 7.5% and the real rate of return is 5.2%, the long-run average inflation rate is ____.
- A) 1.44%
 - B) 2.3%
 - C) 12.7%
 - D) 21.5%

Answer: B

Difficulty: Easy

AACSB: Application of Knowledge

Topic: How Money Grows

Mr. X invested \$5,000 for a period of 2 years. The investment plan offered a nominal rate of return of 6% on the investment.

- 18) Refer to the scenario above. Mr. X will have a final balance of ____ at the end of two years.
- A) \$5,300
 - B) \$5,618
 - C) \$10,600
 - D) \$18,024

Answer: B

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

- 19) Refer to the scenario above. If the long-run inflation rate in the economy is 3.4%, the real rate of return on his investment will be ____.
- A) 1.77%
 - B) 2.6%
 - C) 9.4%
 - D) 20.4%

Answer: B

Difficulty: Easy

AACSB: Application of Knowledge

Topic: How Money Grows

- 20) Refer to the scenario above. If the long-run average inflation rate is 3%, the real value of his investment in today's dollars is ____.
- A) \$5,304.50
 - B) \$5,618.00
 - C) \$10,430.50
 - D) \$15,612.00

Answer: A

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

- 21) Bonds, stocks, and other financial claims that can be traded among investors are called ____.
- A) units of account
 - B) principal
 - C) equity
 - D) securities

Answer: D

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

- 22) Which of the following is the safest security?
- A) A short-term loan to the government
 - B) A long-term loan to the government
 - C) A long-term loan to a small corporation
 - D) A short-term loan to a private trader

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

- 23) ____ are long-term loans made to a borrower by a lender.
- A) Bonds
 - B) Patents
 - C) Trademarks
 - D) Coupons

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

- 24) If the market interest rate rises, ____.
- A) the value of a previously issued bond falls
 - B) the value of a previously issued bond increases
 - C) the market price for bonds increases
 - D) the demand for bonds decreases

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

- 25) If the market interest rate rises, ____.
- A) the present value of future payments increases
 - B) the supply of bonds decreases
 - C) the market price for bonds decreases
 - D) the demand for bonds decreases

Answer: C

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

- 26) Which of the following will happen if market interest rates rise at present?
- A) The quantity demanded of previously issued bonds will decrease.
 - B) The supply of bonds will increase.
 - C) The market prices of bonds will increase.
 - D) The present value of future payments will increase.

Answer: A

Difficulty: Hard

AACSB: Analytical Thinking

Topic: Securities

- 27) If the market interest rate falls, ____.
- A) the value of a previously issued bond falls
 - B) the value of a previously issued bond increases
 - C) the market price for bonds decreases
 - D) the demand for bonds increases

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

- 28) If the market interest rate falls, ____.
- A) the present value of future payments decreases
 - B) the supply of bonds decreases
 - C) the market price for current bonds increase
 - D) the demand for bonds increases

Answer: C

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

- 29) Which of the following is true of bonds?
- A) Bonds are short term loans.
 - B) Bonds are riskier than money market accounts.
 - C) Bonds pay lower returns than treasury bills.
 - D) Bonds have a fixed value.

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

- 30) Identify the correct statement about bonds.
- A) Bonds are short term loans.
 - B) Bonds have a fixed value.
 - C) Bonds are less risky than money market accounts.
 - D) Bonds pay higher returns compared to treasury bills.

Answer: D

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

31) _____ are ownership rights in a corporation.

- A) Bonds
- B) Shares
- C) Treasury bills
- D) Mutual funds

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

32) Which of the following is true of shares of stock?

- A) Shares of stock are riskier than bonds.
- B) Share values can be negative.
- C) Share prices cannot be zero.
- D) Bonds are riskier than shares of stocks.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

33) Shareholders:

- A) have limited liability.
- B) have unlimited control over a company's assets.
- C) are contractually obligated to pay premiums to corporations.
- D) are entitled to a fixed payment at the end of a pre-determined period.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

34) Identify the correct statement.

- A) A company is contractually required to pay interest to bondholders before paying the shareholders.
- B) A company is contractually required to pay a fixed amount to shareholders after a certain period.
- C) A company relies entirely on its shareholders to pay off its debts in case of a financial crisis.
- D) A company stops paying its bondholders but continues paying its shareholders in case of a crisis.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

35) Which of the following statements is true?

- A) Shares of stock pay a higher return than bonds.
- B) Treasury bills pay a higher return than shares.
- C) Bonds pay a higher return than shares.
- D) Treasury bills pay a higher return than bonds.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

36) Which of the following is a difference between a share and a bond?

- A) A share of stock is a short term loan while a bond is a long term loan.
- B) A share of stock pays a low return while a bond pays a high return.
- C) The return on a share of stock varies while the return on a bond is fixed.
- D) A share of stock usually has a maturity date while a bond does not have a maturity date.

Answer: C

Difficulty: Medium

AACSB: Analytical Thinking

Topic: Securities

37) What is a stock market index?

Answer: A stock market index is a weighted average of many stock prices.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

38) What is the difference between a treasury bill and a bond issued by the government?

Answer: A treasury bill is a short time loan to the U.S. government. These loans are practically risk-free, so they don't offer very high rates of return. In other words, investors do not need to be paid a high rate of interest to be induced to make a short-term loan to the government. Over the last 76 years, Treasury bills have paid an annual return of only 3.81% per year.

A bond issued by the government is a long-term loan to the government by the person buying the bond. Bonds have a value that the debtor is contractually obligated to pay the bond-holder at the end of a pre-determined period. The debtor is also contractually obligated to make periodic interest payments to the bond-holder. Bonds can lose value if the government or company that issues the bond loses the ability to fully meet its obligations, or if the market interest rate rises. A rise in the market interest rate lowers the present value of the future coupon payments, lowering the current market price of the bond. Long-term loans are more risky than short-term loans and bond investors are rewarded for bearing this risk with a rate of return that exceeds the rate of return on one-year loans. Over the last 57 years, 10-year bonds issued by the U.S. government have paid an average annual return of 6.3% per year.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

39) Differentiate between a share and a bond on the basis of the returns from each.

Answer: Bonds are long-term loans made to a borrower (debtor) by a lender (creditor) while shares of stocks are ownership rights in a corporation. Bonds have a value that the debtor is contractually obligated to pay the bond-holder at the end of a pre-determined period. The debtor is also contractually obligated to make periodic interest payments (coupon payments) to the bond-holder. However, corporations issuing shares of stocks are not contractually obligated to make such payments. A company pays dividends to its shareholders if it can afford to do so after making interest payments to bond-holders. Therefore, shares of stocks are riskier than bonds and shareholders are rewarded for bearing all of this risk with a rate of return that is much greater than the rate of return on bonds.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Securities

40) George invested a certain amount of money at a rate of interest of 3% for a year.

i) If he received \$ 5,150 at the end of one year, how much did he invest?

ii) If he invests the same amount of money at an annual rate of interest of 5% for 3 years, how much will he get back at the end of 3 years?

iii) How much will he earn by investing the same amount of money for 3 years at a rate of interest of 5% per annum, if he withdraws the interest earned at the end of each year?

Answer: i) If the rate of interest is 3% and the amount received at the end of one year is \$5,150, the amount that George had invested is $\$5,150 / (1 + 0.03) = \$5,000$.

ii) If George invests \$5,000 at an annual rate of interest of 5% for 3 years, he will get back $\$5,000 \times (1 + 0.05)^3 = \$5,788.13$.

iii) If George withdraws the interest earned at the end of each year, he will earn a constant amount at the end of each year which is equal to $\$5,000 \times 0.05 = \250 . Therefore, he will earn a total amount of $\$250 \times 3 = \750 at the end of 3 years.

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

41) Kathy invests \$650 in an account that earns a constant rate of 6.2% over 30 years.

i) What is the amount that Kathy receives on maturity?

ii) What is the balance in the account after 5 years?

iii) What is the real value of \$650 compounded over 30 years, if the rate of inflation is 4 percent and the nominal rate of return is 6.2 percent?

Answer: i) The final balance in the account can be expressed in the form of the following equation: $Z \times (1+r)^T$, where Z is the principal amount, r is the rate of return, and T is the time interval between the initial investment and the final withdrawal. By substituting the values in the equation, we get; $650 \times (1 + 0.062)^{30} = 650 \times (1.062)^{30} = \$3,950.47$. Therefore, on maturity, Kathy will receive an amount of \$3950.47.

ii) In order to calculate the balance in the account after 5 years of investment, we can use the same equation: $Z \times (1+r)^T$. By substituting the values in the equation we get; $650 \times (1.062)^5 = \$878$. Therefore, after 5 years, Kathy will have an amount of \$878 in her account.

iii) In order to find out the real value of \$650, the value adjusted to inflation, compounded over 30 years, we have to replace the nominal rate of return, r, with the real rate of return, $r - \pi$, in the original compound interest. In this case, the real rate of return = $r - \pi = 6.2\% - 4\% = 2.2\%$. Therefore, the real value of \$650, compounded over 30 years = $Z \times [1 + (r - \pi)]^{30} = 650 \times (1.022)^{30} = \$1,248.60$.

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

42) Hester decides to invest \$500 in Holden -Evan Corporation for a period of 5 years. Assume that she receives a return of 8%, in the first year of investment, a return of 5% in the second and third year of investment, and a return of -4% in the fourth and fifth years of investment. What is the total amount of money she will have after 5 years?

Answer: The initial investment that Hester makes is that of \$500. She receives a return of +8% in the first year of investment, +5% in the second and third year of investment, and a return of -4% in the last two years of investment. Therefore, the amount of money that Hester will receive after 5 years = $500 \times (1+0.08) \times (1+0.05) \times (1+0.05) \times (1-0.04) \times (1-0.04) = \548.67 .

Difficulty: Medium

AACSB: Application of Knowledge

Topic: How Money Grows

- 43) Jeff, John, and Martin invested their savings in different types of assets. Jeff's investment pays him a return of 10% per year and grants him ownership rights in an organization. However, he receives no money if the organization goes through a financial crisis. John's investment pays him a return of 5% per year. He receives the periodic interest payments on his investment even if the organization is going through financial hardships. Martin's investment pays him a risk free return of 3% per year. Which type of assets are Jeff, John, and Martin likely to have invested in?

Answer: Jeff is likely to have invested in shares of a corporation, since shares of stocks are ownership rights in a corporation. Shareholders suffer when a company earns less income or when it faces an earnings shortfall. Therefore, shareholders are rewarded with a comparatively higher return, in this case 10%, for bearing all the risk.

John is likely to have invested in bonds offered by a company. Bonds have a value that the debtor is contractually obligated to pay the bond-holder at the end of a pre-determined period. Bondholders also receive periodic interest payments from the debtor, irrespective of the financial health of the company. Bonds are long-term loans and are comparatively riskier than short-term loans. Therefore, interest rates on bonds are higher than the rates offered on one-year loans. In this case, John receives a return of 5% per year.

Martin is likely to have invested in a treasury bill. Treasury bills are short-term loans to a government or a corporation. These loans are risk-free, hence they don't offer high rate of returns. In this case, Martin receives a return of 3% per year, much lower than the returns earned by Jeff, 10%, and John, 5%.

Difficulty: Medium

AACSB: Application of Knowledge

Topic: Securities

W1.2 Risky Returns

- 1) What is meant by the term "Nth percentile"?

Answer: The Nth percentile is a cutoff that divides the data so that N% of the data is below the cutoff and (100-N)% of the data is above the cutoff.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Risky Returns

- 2) What is the risk associated with investing in individual stocks?

Answer: The stock market as a whole is risky but the risk associated with individual stocks is much higher. If an investor invests in the shares of one particular company and that company goes bankrupt suddenly, the investor will lose all his money at the same time.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Risky Returns

- 3) Mark and Jeff had invested some money in G&M Corps. However, when the company was going through a financial crisis, Mark continued to receive the periodic return from his investment while Jeff did not receive any money. Which types of assets are they likely to have invested in?

Answer: Mark is likely to have invested in bonds and Jeff is likely to have invested in shares since a company is contractually required to pay interest to its bond-holders before the company pays anything out to its shareholders. After bondholders get their interest payments, the company can make payments to shareholders if the company can afford to do so. In this sense, shareholders are the ones who primarily suffer when a company earns less income. If the company faces an earnings shortfall, payments to shareholders will completely dry up before any bondholders have to take a hit. In addition, when a company goes bankrupt, the bondholders are paid off first when the assets of the bankrupt company are sold off. Whatever is left after this payment to bondholders is then paid out to shareholders.

Difficulty: Easy

AACSB: Application of Knowledge

Topic: Risky Returns

W1.3 Diversification

- 1) A financial advisor asked Tom to invest in the stocks of several different companies instead of investing in one. This is an example of ____.
- A) amortization
 - B) diversification
 - C) speculation
 - D) depreciation

Answer: B

Difficulty: Medium

AACSB: Analytical Thinking

Topic: Diversification

You are planning to invest \$5,000 in the shares of a company . You have learned that the company is negotiating with a prospective client for a new project. If the company gets the project, the share prices will increase and the value of your investment will increase to \$5,500. However, if a rival company gets the project, share prices of the company will fall and you will get \$4,800. The company has a 30% chance of getting the new project.

- 2) Refer to the scenario above. Your expected final balance should be ____.
- A) \$700
 - B) \$5,000
 - C) \$5,010
 - D) \$10,300

Answer: C

Difficulty: Hard

AACSB: Application of Knowledge

Topic: Diversification

- 3) Refer to the scenario above. The expected average return on your investment is ____.
- A) 0.002%
 - B) 0.2%
 - C) 9%
 - D) 10%

Answer: B

Difficulty: Hard

AACSB: Application of Knowledge

Topic: Diversification

- 4) Your expected final balance from an investment of \$500 is \$640, the average return on your investment is ____.
- A) 1.28%
 - B) 1.40%
 - C) 16%
 - D) 28%

Answer: D

Difficulty: Hard

AACSB: Application of Knowledge

Topic: Diversification

- 5) List three ways in which an investor can diversify his assets.

Answer: Diversification works in many ways. Investors can diversify by holding shares in many companies instead of holding shares in just one company. Investors can also diversify by holding different kinds of assets. For example, a portfolio of stocks and bonds is more diversified than a portfolio that only has stocks. In addition, investors can diversify their investments by holding assets in many different countries.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Diversification

- 6) Two rival companies have submitted their blueprints for a new project to a potential client. It is expected that there is a 50% chance that the share price of the winning company will increase from \$25 to \$60 and a 50% chance that the share price of the losing company will fall from \$25 to \$0. How should an investor with \$100 invest his money to get an assured return of 20%?

Answer: Since the share prices of both companies are initially equal to \$25, the investor can purchase $\$100/\$25 = 4$ shares. If he buys 4 shares of Company A, his expected final balance is $0.5 \times \$240 + 0.5 \times \$0 = \$120$. Similarly, if he buys 4 shares of Company B, his expected final balance is $0.5 \times \$240 + 0.5 \times 0 = \120 . In both the cases, a high level of risk is involved since the investor might end up with nothing if the company he chooses does not get the order from the client. However, there is one way in which the investor can get an assured return of 20%. He can buy 2 shares of each company. In this case, irrespective of which company gets the order from the client the investor's expected final balance is always $0.5 \times \$120 + 0.5 \times \$120 = \$120$.

Difficulty: Hard

AACSB: Application of Knowledge

Topic: Diversification

- 7) Aqua Inc. is trying developing a new product. There is a 60% chance of the product being introduced in the market this year. It is expected that the company's share price will increase from \$70 to \$100 by the end of the year if the product is successfully introduced in the market. However, if it is not introduced, its price will fall by 50%.

i) What is your expected final balance at the end of the year if you own two shares of the company?

ii) Calculate the average rate of return from your investment.

Answer: i) There is a 60% chance of the product being introduced in the market and a 40% chance of the product not being introduced in the market. Therefore, there is a 60% percent chance of the share price increasing to \$100 and a 40% chance of the share price falling to \$35. Since you own 2 shares of the company, your expected final balance at the end of the year should be $0.6 \times \$200 + 0.4 \times \$70 = \$120 + \$28 = \$148$.

ii) The average rate of return on the investment is $\$148/(\$70 \times 2) - 1 = 0.057$ or, 5.7% .

Difficulty: Hard

AACSB: Application of Knowledge

Topic: Diversification

W1.4 Investment Accounts

- 1) Which of the following is a disadvantage of bank accounts?

- A) Bank accounts are very risky.
- B) Bank accounts pay very low rates of interest.
- C) Bank accounts do not facilitate easy transactions.
- D) Bank accounts are useful only for large deposits.

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Bank Accounts

- 2) If you have \$200,500 deposited in one bank and \$178,000 in another bank, which of the following is likely to be true?
- A) Only the first deposit is partially insured.
 - B) Only the second deposit is fully insured.
 - C) Both deposits are fully insured.
 - D) None of the deposits are insured.

Answer: C

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Bank Accounts

- 3) Neil has \$340,000 deposited in one bank and \$152,500 in another bank, which of the following is true?
- A) Only the first deposit is insured.
 - B) Only the second deposit is fully insured.
 - C) Both deposits are fully insured.
 - D) None of the deposits are fully insured.

Answer: B

Difficulty: Easy

AACSB: Application of Knowledge

Topic: Bank Accounts

- 4) John has \$400,000 deposited in one bank and \$300,500 in another bank, which of the following is true?
- A) Only the first deposit is fully insured.
 - B) Only the second deposit is fully insured.
 - C) Both deposits are fully insured.
 - D) None of the deposits are fully insured.

Answer: D

Difficulty: Easy

AACSB: Application of Knowledge

Topic: Bank Accounts

- 5) Mr. Williams and his son jointly own an account. All deposits up to _____ in this account will be fully insured by the Federal Deposit Insurance Corporation.
- A) \$250,000
 - B) \$500,000
 - C) \$750,000
 - D) \$8,00,000

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Bank Accounts

- 6) Which of the following is true of brokerage accounts?
- A) Brokerage accounts are opened for buying risky assets.
 - B) It is unlikely to lose money invested in brokerage accounts.
 - C) Brokerage accounts are offered by commercial banks.
 - D) Money invested in brokerage accounts is insured by the FDIC.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Brokerage Accounts

7) Which of the following is likely to offer a brokerage account?

- A) Federal Reserve
- B) Federal Deposit Insurance Corporation
- C) Fidelity Investments
- D) Commonwealth Bank

Answer: C

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Brokerage Accounts

8) Mutual funds charge an annual fee, which is usually referred to as the ____.

- A) expense ratio
- B) reserve ratio
- C) coupon payment
- D) dividend

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Mutual Funds

9) A typical annual expense ratio is ____ of the value of the assets in the mutual fund.

- A) 1%
- B) 5%
- C) 10%
- D) 20%

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Mutual Funds

10) The expense ratio of a mutual fund is usually reported on the ____.

- A) mutual fund's prospectus
- B) investor's passbook
- C) annual statement of the mutual fund
- D) quarterly statements of the mutual fund

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Mutual Funds

11) The fee that a mutual fund charges is usually proportional to the ____.

- A) number of investors who invest in the fund
- B) current prices of the assets that the investor has
- C) incomes of the investors who invest in the fund
- D) amount of assets that the investor has in the mutual fund

Answer: D

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Mutual Funds

- 12) Which of the following is a difference between an index fund and mutual fund?
- A) An index fund is actively managed while a mutual fund is passively managed.
 - B) An index fund is passively managed while a mutual fund is actively managed.
 - C) An index fund charges a high fee while a mutual fund charges a low fee.
 - D) An index fund only invests in bonds while a mutual fund only invests in stocks.

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Mutual Funds

- 13) Which of the following is true?
- A) An index fund is actively managed while a mutual fund is passively managed.
 - B) An index fund charges a low fee while a mutual fund charges a high fee.
 - C) An index fund charges a high annual fee while a mutual fund charges a low annual fee.
 - D) An index fund only invests in bonds while a mutual fund only invests in stocks.

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Mutual Funds

- 14) A financial contract that provides a stream of benefits that last as long as the beneficiaries are still alive is called a(n) ____.
- A) bond
 - B) compound return
 - C) share
 - D) annuity

Answer: D

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

- 15) Which of the following is true of Social Security benefits?
- A) Social Security is a mandatory retirement savings program.
 - B) Social Security benefits enjoyed by all workers are equal.
 - C) Only the employees pay tax for the Social Security benefits enjoyed by them.
 - D) Only the employers pay tax for the Social Security benefits enjoyed by employees.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

- 16) Which of the following taxes is linked to the Social Security system?
- A) Payroll tax
 - B) Sales tax
 - C) Excise duty
 - D) Income tax

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

17) Social Security benefits:

- A) enjoyed by all workers are equal.
- B) enjoyed by a worker are annuities.
- C) are not indexed to price changes.
- D) are high for high-income workers.

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

18) _____ pay taxes for the Social Security benefits enjoyed by workers.

- A) Only the employees
- B) Only the employers
- C) Both the employers and the employees
- D) Neither the employer nor the employees

Answer: C

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

19) Social Security benefits to a two-earner household:

- A) fall after the death of the first member of the household
- B) stop after the death of the first member of the household
- C) are not indexed to price changes
- D) increase when the price level falls

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

20) Identify the correct statement about Social Security benefits.

- A) Social Security benefits are available to beneficiaries as long as they are alive.
- B) Social Security benefits are available to beneficiaries as long as they work.
- C) Social Security benefits increase when the price level falls.
- D) Social Security benefits increase when a member of a household dies.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

21) Which of the following statements about Social Security benefits is true?

- A) Social Security benefits are indexed to inflation.
- B) Social Security benefits increase when the price level falls.
- C) Social Security benefits increase when a worker retires.
- D) Social Security benefits increase when a member of a household dies.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

- 22) Which of the following changes is the federal government likely to introduce in Social Security payments?
- A) Lower the normal retirement age
 - B) Delay the normal retirement age
 - C) Reduce the payroll tax
 - D) Increase the benefits to high-income beneficiaries

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

- 23) Which of the following changes can the federal government introduce in the Social Security system to prevent running out of money in the years to come?
- A) Increase the payroll tax
 - B) Lower sales tax
 - C) Lower the interest rate
 - D) Increase payments to low-income beneficiaries

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

- 24) Defined benefit pensions are ____.
- A) indexed to price changes
 - B) contractually specified retirement benefits
 - C) a mandatory retirement savings program
 - D) available to workers in all sectors of the economy

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

- 25) Which of the following is true?
- A) Defined benefit pensions are not indexed to price changes.
 - B) Defined benefit pensions are not available to low-income workers.
 - C) Defined benefit pensions are a mandatory retirement savings program
 - D) Defined benefit pensions are available to workers in all sectors of the economy

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

- 26) Which of the following is true of defined benefit pensions?
- A) Defined benefit pensions are indexed to price changes.
 - B) Defined benefit pensions are only available to low-income workers.
 - C) Defined benefit pensions are a mandatory retirement savings program
 - D) Defined benefit pensions are available to most public sector workers.

Answer: D

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

27) Which of the following is true of defined benefit pensions?

- A) Defined benefit pensions are not indexed to price changes.
- B) Defined benefit pensions are only available to low-income workers.
- C) Defined benefit pensions are dependent on the number of years of a worker's service.
- D) Defined benefit pensions are available to workers in all sectors of the economy.

Answer: C

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

28) Which of the following is true of defined benefit pensions?

- A) Defined benefit pensions are available only to part-time workers.
- B) Defined benefit pensions are only available to low-income workers.
- C) Defined benefit pensions are a mandatory retirement savings program.
- D) Defined benefit pensions are dependent on the final salary a worker receives.

Answer: D

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

29) Annie and Edward are two colleagues in JIT Corporation. Annie will enjoy higher defined benefit pensions if:

- A) Annie is older than Edward.
- B) Annie has a larger family in comparison to Edward.
- C) Annie earns a lower salary than Edward at the time of retirement.
- D) Annie has worked in the company for a longer time period.

Answer: D

Difficulty: Easy

AACSB: Application of Knowledge

Topic: Retirement Savings Plans

30) Mary and Joseph are two colleagues in M&S Associates. Joseph will enjoy higher defined benefit pensions if:

- A) Joseph is older than Mary.
- B) Joseph has a larger family than Mary.
- C) Joseph earns a higher salary than Mary at the time of retirement.
- D) Joseph has worked in the company for a shorter duration compared to Mary.

Answer: C

Difficulty: Easy

AACSB: Application of Knowledge

Topic: Retirement Savings Plans

31) Bill retired after working for 20 years with Aqua Inc. His last drawn salary was \$125,000 per year. How much is he likely to get annually as defined benefit pension?

- A) \$25,000
- B) \$50,000
- C) \$75,000
- D) \$100,000

Answer: B

Difficulty: Medium

AACSB: Application of Knowledge

Topic: Retirement Savings Plans

- 32) Adam, John, Jack, and Jean retired from Oceania Pvt. Ltd. after working for 5, 7, 10, and 12 years respectively. If they all earned the same salary at the time of retirement, who will enjoy the highest defined benefit pension after retirement?
- A) Adam
 - B) John
 - C) Jack
 - D) Jean

Answer: D

Difficulty: Medium

AACSB: Application of Knowledge

Topic: Retirement Savings Plans

- 33) Four colleagues retired after working in the same company for 10 years. However, the defined benefit pensions that each of them received was different. This implies that ____.
- A) their family sizes were different
 - B) their consumption patterns were different
 - C) the final salary earned by each of them was different
 - D) the total amount of taxes paid by each of them was different

Answer: C

Difficulty: Easy

AACSB: Application of Knowledge

Topic: Retirement Savings Plans

- 34) Which of the following is a difference between defined benefits pensions and defined contribution pensions?
- A) Defined benefit pensions are available to most public sector workers while defined contribution pensions are common among private sector workers.
 - B) Defined benefit pensions are paid by the employer while the employee controls the defined contribution pensions.
 - C) Defined benefit pensions are indexed to inflation while defined contribution pensions are not indexed to inflation.
 - D) Defined benefit pension is a voluntary retirement savings program while defined contribution pension is a mandatory retirement savings program.

Answer: B

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

- 35) Which of the following is a difference between Social Security and defined contribution pensions?
- A) Social Security is a mandatory pension plan and defined contribution pension is a voluntary pension plan.
 - B) Social Security is only available to private sector employees and defined contribution pension is only available to public sector employees.
 - C) Social Security is managed solely by the employer and defined contribution pension is managed solely by the employees.
 - D) Social Security is managed solely by the employees and defined contribution pension is managed solely by the employers.

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

36) Which of the following is an advantage of the defined contribution pension plan?

- A) It is indexed to price changes.
- B) It is a mandatory retirement savings plan.
- C) It is a portable retirement savings account.
- D) All the contributions in these accounts are made only by the employer.

Answer: C

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

37) Which of the following retirement plans involve individual accounts that are owned and controlled by the employee?

- A) Defined contribution pensions
- B) Defined benefit pensions
- C) Social Security payments
- D) Variable annuity pensions

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

38) Which of the following pensions plans are also known as 401(k) accounts?

- A) Defined contribution pensions
- B) Defined benefit pensions
- C) Social Security
- D) Individual retirements accounts

Answer: A

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

39) Which of the following is a similarity between defined contribution pensions and individual retirement accounts?

- A) Both are mandatory retirement savings accounts.
- B) Both the accounts are managed by the employer directly.
- C) Both the accounts are available only to public sector employees.
- D) Both the accounts allow their owners to make asset allocation decisions.

Answer: D

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

40) List the main accounts that banks offer. Why are bank accounts considered to be safe in the United States?

Answer: Checking accounts, savings accounts, money market deposit accounts, and certificates of deposit — usually referred to as CDs — are the main accounts that banks offer. Bank accounts are considered to be safe because these accounts are covered by the Federal Deposit Insurance Corporation, a government agency that insures up to \$250,000 per individual account.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Bank Accounts

41) Differentiate between an actively managed mutual fund and a passively managed mutual fund.

Answer: Some mutual funds try to buy and sell assets in a timely way so that the mutual fund outperforms a particular benchmark index. These mutual funds are said to be actively managed. On the other hand, some mutual funds are passively managed, which means that the mutual fund manager simply tries to track the return of an index, like the Standard & Poor's 500 stock index. Such passively managed mutual funds are referred to as index funds.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Mutual Funds

42) Why are defined benefit pensions considered to be relatively safe financial claims?

Answer: Defined benefit pensions are considered to be relatively safe financial claims because the employer has to fund an audited account — referred to as the pension plan — that will be able to fully pay out these future pension obligations. If the account runs short of the needed money, the company is legally required to relatively quickly top up the plan. Even if the company goes bankrupt, almost all defined benefit pension claims are paid out, since these pension plans are insured by the Pension Benefit Guarantee Corporation (PBGC), a government agency. The PBGC guarantees all defined benefit pensions up to an annual payout of \$54,000 per beneficiary.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

43) Rebecca is planning to quit her current job. How can she manage the money in the defined contribution plan of her current employer?

Answer: Since the employee is the sole owner of a defined contribution account, she can decide what to do with her money when she separates from the firm by quitting, getting fired, or retiring. She can either leave the money in the defined contribution plan of her ex-employer or she can take the money with her. In the latter case, she can either roll the money into the defined contribution plan at her next employer, or she can roll the money into an Individual Retirement Account, which is commonly referred to as an IRA.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

44) What are target date mutual funds?

Answer: Target date mutual funds are diversified mutual funds that start out with a very high allocation to equities for young employees — nearly 100% equities -- which slowly transitions to a much lower equity concentration for aging employees — about 40% of equities at retirement.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

45) What are individual retirement accounts or IRAs?

Answer: IRA's are the final pillar of the U.S. retirement savings system. IRAs are retirement savings accounts that anyone can set up; they are not sponsored by a person's employer. If an individual does not contribute to her employer's defined contribution savings plan, then she can use an IRA to save for retirement. In the U.S., about half of the private sector employees work for a firm that does not offer any retirement savings plan. For these workers, IRAs are the primary vehicle for voluntary retirement savings. IRA contributions also occur when people roll over balances from a defined contribution account.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Retirement Savings Plans

46) What is return chasing?

Answer: If people invest in assets that have realized a high rate of return in the past, economists call this return chasing.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Evidence-Based Economics: Do investors chase historical returns?

47) What was the main finding of Shlomo Benartzi's research on return chasing?

Answer: Employees that work in firms whose stock has done relatively well over the past decade, allocate 40% of their 401(k) contributions to employer stock. Employees that work in firms whose stock has done relatively badly during the past decade, allocate only 10% of their 401(k) contributions to employer stock.

Difficulty: Easy

AACSB: Analytical Thinking

Topic: Evidence-Based Economics: Do investors chase historical returns?

48) There are two households—household A and household B. Household A has two earning members with an income of \$65,000 per year and Household B has two earning members with an income of \$98,000 per year. i) Do the earning members in both the households need to pay payroll taxes? Why or why not?

ii) Which household will have a higher Social Security income replacement ratio after retirement?

iii) Suppose one of the retired members of household A dies 2 years after retirement. How will it affect the Social Security income of the household?

Answer: i) The earning members in both the households need to pay payroll taxes because Social Security is a mandatory retirement savings program.

ii) Household A will have a higher Social Security replacement ratio than household B.

iii) The Social Security income of the household will fall after the death of one retired member. After retirement, a household receives Social Security benefits until both members of the household have died. In other words, these benefits are an annuity: a financial contract that provides a stream of benefits that last as long as the beneficiaries are still alive. Hence, annuities protect you (and your partner) against the risk of outliving your savings. The only catch is that the benefits fall after the first member of the household dies. The government reasons that you won't need as much money after one of the two partners is deceased. When the surviving member of the household also dies, all payments cease.

Difficulty: Easy

AACSB: Application of Knowledge

Topic: Retirement Savings Plans

49) Consider the following hypothetical example of three households. Household A has an annual income of \$23,000, household B has an annual income of \$165,000, and household C has an annual income of \$35,000. Assume that all the three households have two earning members.

- a. What is the amount paid by household A and household C as payroll tax to the government?
- b. Which of the following households has the highest Social Security replacement ratio and what is the amount received by the household under Social Security program? What is the amount received by the household that has the lowest Social Security replacement ratio?

Answer: a. The government receives 6.2% as employee's contribution and 6.2% as employer's contribution, which is a total of 12.4% of an employee's capped income as Social Security payroll tax. In this case, household A is liable to pay \$2,480, and household C is liable to pay \$4,340 as payroll tax to the government as payroll taxes.

b. Household A has the highest Social Security replacement ratio of 84%. The household will receive 84% of their income, under Social Security, after both the earning members of the household retire. In other words, the household will receive an amount of \$19,320 per year. The household that has the lowest Social Security replacement ratio is Household B. It falls under the replacement ratio of 34%, hence it will receive an amount of \$56,100 per year.

Difficulty: Medium

AACSB: Application of Knowledge

Topic: Retirement Savings Plans

50) George worked in A2Z Ltd. for 15 years and his final salary at the time of retirement was \$125,000. What will be his annual retirement income from defined benefit pensions?

Answer: Defined benefit pensions are contractually specified employment benefits, in which the employer promises to pay the employee a fixed annuity after retirement. This annuity is usually not indexed to inflation. The magnitude of the annuity is adjusted to reflect years of service at the employer and the level of the employee's salary. For example, a common benefit formula is for the retiring worker to receive an annual retirement income equal to: $2\% \times (\text{Years of Service}) \times (\text{Final Salary}) = \$37,500$.

Difficulty: Medium

AACSB: Application of Knowledge

Topic: Retirement Savings Plans

51) What is the amount that an employer is contractually obligated to pay, under the Defined Benefit Pensions Plan, to an employee who retires after 20 years of service and a salary of \$65,000?

Answer: Under the defined benefit pensions plan, the employer is contractually obligated to pay an amount equal to $(2\%) \times (\text{Years of Service}) \times (\text{Final Salary})$. In this case, the employee will receive an amount of \$26,000 as pension benefit per year.

Difficulty: Medium

AACSB: Application of Knowledge

Topic: Retirement Savings Plans

52) Suppose you make an investment of \$2,000 in a savings account that offers you a return of 5 percent per annum. How much money would you have in your account, after 35 years, if your account charges an annual overlooking fee of 2.5 percent?

Answer: An initial investment of \$2,000 that earns an annual return of 5 percent, will compound to: $\$2,000 \times (1 + 0.05 - 0.025)^{35} = \$4,746.41$, in 35 years with a yearly overlooking fees of 2.5 percent.

Difficulty: Medium

AACSB: Application of Knowledge

Topic: Retirement Savings Plans